

\*\* 44 48 : Tiada Fenomena

TAHUN = 2019  
LONG= 120.0 ~

\*\*\*\* ARGUMEN MASA DALAM WAKTU PIAWAI MALAYSIA \*\*\*\*

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
27	12	2018	22	38	47	27	12	2018	10	7	59	0
28	12	2018	23	30	16	28	12	2018	11	1	8	0
29	12	2018	**	44	48	29	12	2018	11	51	31	0
30	12	2018	0	19	24	30	12	2018	12	40	3	0
31	12	2018	1	7	10	31	12	2018	13	27	32	0
32	12	2018	1	54	18	1	1	2019	14	14	59	0
2	1	2019	2	42	0	2	1	2019	15	3	4	0
3	1	2019	3	30	28	3	1	2019	15	51	59	0
4	1	2019	4	19	47	4	1	2019	16	41	39	0
5	1	2019	5	9	40	5	1	2019	17	31	39	0
6	1	2019	5	59	29	6	1	2019	18	21	6	0
7	1	2019	6	48	27	7	1	2019	19	9	42	0
8	1	2019	7	36	19	8	1	2019	19	56	52	0
9	1	2019	8	22	34	9	1	2019	20	42	20	0
10	1	2019	9	7	11	10	1	2019	21	26	15	0
11	1	2019	9	50	23	11	1	2019	22	8	49	0
12	1	2019	10	32	47	12	1	2019	22	51	7	0
13	1	2019	11	15	19	13	1	2019	23	33	50	0
14	1	2019	11	58	47	14	1	2019	**	44	48	0

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	1	2019	12	44	7	15	1	2019	0	17	52	0
16	1	2019	13	32	21	16	1	2019	1	4	18	0
17	1	2019	14	24	10	17	1	2019	1	54	5	0
18	1	2019	15	20	16	18	1	2019	2	47	45	0
19	1	2019	16	20	24	19	1	2019	3	45	54	0
20	1	2019	17	23	7	20	1	2019	4	47	29	0
21	1	2019	18	26	20	21	1	2019	5	50	44	0
22	1	2019	19	27	55	22	1	2019	6	53	23	0
23	1	2019	20	26	15	23	1	2019	7	53	32	0
24	1	2019	21	21	18	24	1	2019	8	50	17	0
25	1	2019	22	13	22	25	1	2019	9	43	57	0
26	1	2019	23	3	14	26	1	2019	10	34	58	0
27	1	2019	23	51	49	27	1	2019	11	24	15	0
28	1	2019	**	44	48	28	1	2019	12	12	33	0
29	1	2019	0	39	43	29	1	2019	13	0	44	0
30	1	2019	1	28	5	30	1	2019	13	49	24	0
31	1	2019	2	16	58	31	1	2019	14	38	35	0
32	1	2019	3	6	20	1	2	2019	15	28	6	0

2	2	2019	3	55	51	2	2	2019	16	17	30	0
3	2	2019	4	44	54	3	2	2019	17	6	3	0
4	2	2019	5	32	49	4	2	2019	17	53	31	0
5	2	2019	6	19	33	5	2	2019	18	39	32	0
6	2	2019	7	4	44	6	2	2019	19	24	1	0
7	2	2019	7	48	29	7	2	2019	20	7	12	0
8	2	2019	8	31	12	8	2	2019	20	49	34	0
9	2	2019	9	13	22	9	2	2019	21	31	33	0
10	2	2019	9	55	46	10	2	2019	22	14	22	0
11	2	2019	10	39	27	11	2	2019	22	58	44	0
12	2	2019	11	25	10	12	2	2019	23	45	32	0
13	2	2019	12	13	50	13	2	2019	**	44	48	0
14	2	2019	13	5	59	14	2	2019	0	35	42	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	14	2	4	15	2	2019	1	29	34	0
16	2	2019	15	1	43	16	2	2019	2	27	31	0
17	2	2019	16	3	30	17	2	2019	3	28	26	0
18	2	2019	17	5	33	18	2	2019	4	30	37	0
19	2	2019	18	6	8	19	2	2019	5	32	10	0
20	2	2019	19	3	57	20	2	2019	6	31	32	0
21	2	2019	19	59	7	21	2	2019	7	28	2	0
22	2	2019	20	51	56	22	2	2019	8	22	6	0
23	2	2019	21	43	3	23	2	2019	9	14	6	0
24	2	2019	22	33	12	24	2	2019	10	4	47	0
25	2	2019	23	22	46	25	2	2019	10	54	43	0
26	2	2019	**	44	48	26	2	2019	11	44	28	0
27	2	2019	0	12	36	27	2	2019	12	34	26	0
28	2	2019	1	2	33	28	2	2019	13	24	24	0
29	2	2019	1	52	23	1	3	2019	14	14	5	0
2	3	2019	2	41	43	2	3	2019	15	3	3	0
3	3	2019	3	30	3	3	3	2019	15	50	40	0
4	3	2019	4	16	52	4	3	2019	16	36	59	0
5	3	2019	5	2	29	5	3	2019	17	21	56	0
6	3	2019	5	46	42	6	3	2019	18	5	36	0
7	3	2019	6	29	50	7	3	2019	18	48	22	0
8	3	2019	7	12	23	8	3	2019	19	30	47	0
9	3	2019	7	54	51	9	3	2019	20	13	19	0
10	3	2019	8	37	59	10	3	2019	20	57	4	0
11	3	2019	9	22	46	11	3	2019	21	42	42	0
12	3	2019	10	9	49	12	3	2019	22	30	54	0
13	3	2019	10	59	47	13	3	2019	23	22	15	0
14	3	2019	11	52	52	14	3	2019	**	44	48	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	49	5	15	3	2019	0	16	40	0
16	3	2019	13	47	49	16	3	2019	1	14	20	0
17	3	2019	14	47	39	17	3	2019	2	13	50	0

18	3	2019	15	47	11	18	3	2019	3	13	44	0
19	3	2019	16	45	15	19	3	2019	4	12	40	0
20	3	2019	17	41	13	20	3	2019	5	9	48	0
21	3	2019	18	35	24	21	3	2019	6	4	49	0
22	3	2019	19	28	13	22	3	2019	6	58	20	0
23	3	2019	20	20	11	23	3	2019	7	50	45	0
24	3	2019	21	11	49	24	3	2019	8	42	35	0
25	3	2019	22	3	24	25	3	2019	9	34	15	0
26	3	2019	22	54	41	26	3	2019	10	25	46	0
27	3	2019	23	45	56	27	3	2019	11	17	7	0
28	3	2019	**	44	48	28	3	2019	12	8	6	0
29	3	2019	0	36	27	29	3	2019	12	58	6	0
30	3	2019	1	25	43	30	3	2019	13	46	43	0
31	3	2019	2	13	27	31	3	2019	14	33	36	0
32	3	2019	2	59	21	1	4	2019	15	18	55	0
2	4	2019	3	43	58	2	4	2019	16	2	57	0
3	4	2019	4	27	24	3	4	2019	16	46	1	0
4	4	2019	5	10	11	4	4	2019	17	28	40	0
5	4	2019	5	52	54	5	4	2019	18	11	33	0
6	4	2019	6	36	11	6	4	2019	18	55	12	0
7	4	2019	7	20	42	7	4	2019	19	40	37	0
8	4	2019	8	7	26	8	4	2019	20	28	25	0
9	4	2019	8	56	46	9	4	2019	21	19	0	0
10	4	2019	9	48	59	10	4	2019	22	12	30	0
11	4	2019	10	43	50	11	4	2019	23	8	16	0
12	4	2019	11	40	42	12	4	2019	**	44	48	0
13	4	2019	12	38	42	13	4	2019	0	5	57	0
14	4	2019	13	36	28	14	4	2019	1	4	3	0

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	33	4	15	4	2019	2	1	23	0
16	4	2019	15	28	4	16	4	2019	2	57	13	0
17	4	2019	16	21	22	17	4	2019	3	51	23	0
18	4	2019	17	13	40	18	4	2019	4	44	3	0
19	4	2019	18	5	34	19	4	2019	5	36	8	0
20	4	2019	18	57	32	20	4	2019	6	28	3	0
21	4	2019	19	49	54	21	4	2019	7	20	14	0
22	4	2019	20	42	38	22	4	2019	8	12	51	0
23	4	2019	21	35	10	23	4	2019	9	5	36	0
24	4	2019	22	27	21	24	4	2019	9	58	2	0
25	4	2019	23	18	20	25	4	2019	10	49	45	0
26	4	2019	**	44	48	26	4	2019	11	39	56	0
27	4	2019	0	7	33	27	4	2019	12	28	13	0
28	4	2019	0	54	42	28	4	2019	13	14	23	0
29	4	2019	1	39	43	29	4	2019	13	58	50	0
30	4	2019	2	23	29	30	4	2019	14	42	7	0
31	4	2019	3	6	19	1	5	2019	15	24	45	0
2	5	2019	3	48	53	2	5	2019	16	7	27	0
3	5	2019	4	31	58	3	5	2019	16	51	1	0
4	5	2019	5	16	19	4	5	2019	17	36	4	0
5	5	2019	6	2	35	5	5	2019	18	23	35	0

6	5	2019	6	51	46	6	5	2019	19	14	5	0
7	5	2019	7	43	58	7	5	2019	20	7	38	0
8	5	2019	8	39	4	8	5	2019	21	3	49	0
9	5	2019	9	36	17	9	5	2019	22	1	41	0
10	5	2019	10	34	17	10	5	2019	22	59	33	0
11	5	2019	11	31	47	11	5	2019	23	56	40	0
12	5	2019	12	27	55	12	5	2019	**	44	48	0
13	5	2019	13	22	5	13	5	2019	0	51	52	0
14	5	2019	14	14	24	14	5	2019	1	45	4	0

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	5	2019	15	5	16	15	5	2019	2	36	36	0
16	5	2019	15	55	38	16	5	2019	3	27	1	0
17	5	2019	16	46	17	17	5	2019	4	17	29	0
18	5	2019	17	37	40	18	5	2019	5	8	27	0
19	5	2019	18	29	59	19	5	2019	6	0	19	0
20	5	2019	19	23	2	20	5	2019	6	53	5	0
21	5	2019	20	15	57	21	5	2019	7	46	13	0
22	5	2019	21	8	19	22	5	2019	8	38	57	0
23	5	2019	21	59	9	23	5	2019	9	30	42	0
24	5	2019	22	47	51	24	5	2019	10	20	34	0
25	5	2019	23	34	19	25	5	2019	11	8	13	0
26	5	2019	**	44	48	26	5	2019	11	53	35	0
27	5	2019	0	18	30	27	5	2019	12	37	11	0
28	5	2019	1	1	28	28	5	2019	13	19	47	0
29	5	2019	1	43	43	29	5	2019	14	2	3	0
30	5	2019	2	26	8	30	5	2019	14	44	50	0
31	5	2019	3	9	35	31	5	2019	15	29	4	0
32	5	2019	3	54	57	1	6	2019	16	15	27	0
2	6	2019	4	42	56	2	6	2019	17	5	0	0
3	6	2019	5	34	30	3	6	2019	17	58	9	0
4	6	2019	6	29	34	4	6	2019	18	54	37	0
5	6	2019	7	27	31	5	6	2019	19	53	29	0
6	6	2019	8	27	1	6	6	2019	20	53	9	0
7	6	2019	9	26	15	7	6	2019	21	51	42	0
8	6	2019	10	23	46	8	6	2019	22	48	19	0
9	6	2019	11	18	58	9	6	2019	23	42	20	0
10	6	2019	12	11	39	10	6	2019	**	44	48	0
11	6	2019	13	2	20	11	6	2019	0	33	56	0
12	6	2019	13	51	45	12	6	2019	1	23	52	0
13	6	2019	14	40	55	13	6	2019	2	12	55	0
14	6	2019	15	30	41	14	6	2019	3	2	20	0

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	6	2019	16	21	29	15	6	2019	3	52	35	0
16	6	2019	17	13	26	16	6	2019	4	43	59	0
17	6	2019	18	6	7	17	6	2019	5	36	24	0
18	6	2019	18	58	35	18	6	2019	6	29	11	0

19	6	2019	19	50	16	19	6	2019	7	21	21	0
20	6	2019	20	40	13	20	6	2019	8	12	20	0
21	6	2019	21	27	56	21	6	2019	9	1	15	0
22	6	2019	22	13	22	22	6	2019	9	47	53	0
23	6	2019	22	56	53	23	6	2019	10	32	22	0
24	6	2019	23	38	52	24	6	2019	11	15	8	0
25	6	2019	**	44	48	25	6	2019	11	56	58	0
26	6	2019	0	20	38	26	6	2019	12	38	53	0
27	6	2019	1	2	53	27	6	2019	13	21	44	0
28	6	2019	1	46	36	28	6	2019	14	6	29	0
29	6	2019	2	32	46	29	6	2019	14	53	56	0
30	6	2019	3	22	5	30	6	2019	15	45	4	0
31	6	2019	4	15	32	1	7	2019	16	40	14	0
2	7	2019	5	12	48	2	7	2019	17	38	54	0
3	7	2019	6	12	55	3	7	2019	18	39	43	0
4	7	2019	7	14	7	4	7	2019	19	40	45	0
5	7	2019	8	14	21	5	7	2019	20	39	56	0
6	7	2019	9	12	7	6	7	2019	21	36	32	0
7	7	2019	10	7	8	7	7	2019	22	30	15	0
8	7	2019	10	59	26	8	7	2019	23	21	29	0
9	7	2019	11	49	44	9	7	2019	**	44	48	0
10	7	2019	12	39	1	10	7	2019	0	11	8	0
11	7	2019	13	28	1	11	7	2019	1	0	12	0
12	7	2019	14	17	38	12	7	2019	1	49	19	0
13	7	2019	15	8	19	13	7	2019	2	39	31	0
14	7	2019	15	59	56	14	7	2019	3	30	44	0

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	7	2019	16	51	59	15	7	2019	4	22	43	0
16	7	2019	17	43	27	16	7	2019	5	14	41	0
17	7	2019	18	33	48	17	7	2019	6	5	41	0
18	7	2019	19	22	19	18	7	2019	6	55	17	0
19	7	2019	20	8	39	19	7	2019	7	42	47	0
20	7	2019	20	52	53	20	7	2019	8	28	6	0
21	7	2019	21	35	28	21	7	2019	9	11	30	0
22	7	2019	22	16	51	22	7	2019	9	53	28	0
23	7	2019	22	58	16	23	7	2019	10	34	47	0
24	7	2019	23	40	29	24	7	2019	11	16	32	0
25	7	2019	**	44	48	25	7	2019	11	59	32	0
26	7	2019	0	24	30	26	7	2019	12	44	45	0
27	7	2019	1	11	19	27	7	2019	13	33	0	0
28	7	2019	2	1	33	28	7	2019	14	25	8	0
29	7	2019	2	56	7	29	7	2019	15	21	26	0
30	7	2019	3	54	31	30	7	2019	16	21	6	0
31	7	2019	4	55	34	31	7	2019	17	22	39	0
32	7	2019	5	57	22	1	8	2019	18	24	5	0
2	8	2019	6	57	54	2	8	2019	19	23	26	0
3	8	2019	7	55	50	3	8	2019	20	20	11	0
4	8	2019	8	51	4	4	8	2019	21	14	12	0
5	8	2019	9	43	47	5	8	2019	22	6	2	0
6	8	2019	10	34	47	6	8	2019	22	56	32	0

7	8	2019	11	24	57	7	8	2019	23	46	36	0
8	8	2019	12	14	56	8	8	2019	**	44	48	0
9	8	2019	13	5	22	9	8	2019	0	36	39	0
10	8	2019	13	56	33	10	8	2019	1	27	35	0
11	8	2019	14	48	7	11	8	2019	2	19	5	0
12	8	2019	15	39	28	12	8	2019	3	10	43	0
13	8	2019	16	29	41	13	8	2019	4	1	44	0
14	8	2019	17	18	26	14	8	2019	4	51	17	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	5	17	15	8	2019	5	39	13	0
16	8	2019	18	50	7	16	8	2019	6	25	6	0
17	8	2019	19	33	12	17	8	2019	7	9	3	0
18	8	2019	20	15	1	18	8	2019	7	51	28	0
19	8	2019	20	56	5	19	8	2019	8	32	53	0
20	8	2019	21	37	34	20	8	2019	9	14	2	0
21	8	2019	22	20	11	21	8	2019	9	55	59	0
22	8	2019	23	4	50	22	8	2019	10	39	30	0
23	8	2019	23	52	22	23	8	2019	11	25	27	0
24	8	2019	**	44	48	24	8	2019	12	14	40	0
25	8	2019	0	43	37	25	8	2019	13	7	26	0
26	8	2019	1	38	27	26	8	2019	14	3	55	0
27	8	2019	2	36	56	27	8	2019	15	3	22	0
28	8	2019	3	37	31	28	8	2019	16	4	11	0
29	8	2019	4	38	28	29	8	2019	17	4	39	0
30	8	2019	5	38	8	30	8	2019	18	3	14	0
31	8	2019	6	35	31	31	8	2019	18	59	42	0
32	8	2019	7	30	49	1	9	2019	19	54	6	0
2	9	2019	8	24	16	2	9	2019	20	46	57	0
3	9	2019	9	16	33	3	9	2019	21	38	59	0
4	9	2019	10	8	23	4	9	2019	22	30	50	0
5	9	2019	11	0	8	5	9	2019	23	22	38	0
6	9	2019	11	52	5	6	9	2019	**	44	48	0
7	9	2019	12	44	15	7	9	2019	0	14	54	0
8	9	2019	13	36	2	8	9	2019	1	7	5	0
9	9	2019	14	26	48	9	9	2019	1	58	33	0
10	9	2019	15	15	49	10	9	2019	2	48	40	0
11	9	2019	16	2	58	11	9	2019	3	36	45	0
12	9	2019	16	48	14	12	9	2019	4	23	4	0
13	9	2019	17	31	44	13	9	2019	5	7	26	0
14	9	2019	18	13	54	14	9	2019	5	50	14	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	55	21	15	9	2019	6	31	58	0
16	9	2019	19	36	34	16	9	2019	7	13	14	0
17	9	2019	20	18	40	17	9	2019	7	54	44	0
18	9	2019	21	2	21	18	9	2019	8	37	31	0
19	9	2019	21	48	19	19	9	2019	9	22	13	0

20	9	2019	22	37	14	20	9	2019	10	9	31	0
21	9	2019	23	29	25	21	9	2019	10	59	56	0
22	9	2019	**	44	48	22	9	2019	11	53	28	0
23	9	2019	0	24	33	23	9	2019	12	49	49	0
24	9	2019	1	22	24	24	9	2019	13	48	9	0
25	9	2019	2	21	23	25	9	2019	14	47	2	0
26	9	2019	3	20	9	26	9	2019	15	45	16	0
27	9	2019	4	17	42	27	9	2019	16	41	56	0
28	9	2019	5	13	30	28	9	2019	17	37	12	0
29	9	2019	6	8	7	29	9	2019	18	31	21	0
30	9	2019	7	1	51	30	9	2019	19	24	55	0
31	9	2019	7	55	17	1	10	2019	20	18	27	0
2	10	2019	8	48	53	2	10	2019	21	12	15	0
3	10	2019	9	42	38	3	10	2019	22	6	3	0
4	10	2019	10	36	22	4	10	2019	22	59	55	0
5	10	2019	11	29	45	5	10	2019	23	52	59	0
6	10	2019	12	21	56	6	10	2019	**	44	48	0
7	10	2019	13	12	15	7	10	2019	0	44	27	0
8	10	2019	14	0	23	8	10	2019	1	33	49	0
9	10	2019	14	46	9	9	10	2019	2	20	51	0
10	10	2019	15	30	0	10	10	2019	3	5	32	0
11	10	2019	16	12	29	11	10	2019	3	48	42	0
12	10	2019	16	54	6	12	10	2019	4	30	39	0
13	10	2019	17	35	36	13	10	2019	5	12	6	0
14	10	2019	18	17	30	14	10	2019	5	53	42	0

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	10	2019	19	0	52	15	10	2019	6	36	8	0
16	10	2019	19	46	21	16	10	2019	7	20	27	0
17	10	2019	20	34	28	17	10	2019	8	7	6	0
18	10	2019	21	25	28	18	10	2019	8	56	33	0
19	10	2019	22	19	15	19	10	2019	9	48	52	0
20	10	2019	23	14	53	20	10	2019	10	43	31	0
21	10	2019	**	44	48	21	10	2019	11	39	47	0
22	10	2019	0	11	53	22	10	2019	12	36	44	0
23	10	2019	1	8	48	23	10	2019	13	33	10	0
24	10	2019	2	4	46	24	10	2019	14	28	30	0
25	10	2019	2	59	24	25	10	2019	15	22	28	0
26	10	2019	3	52	47	26	10	2019	16	15	39	0
27	10	2019	4	45	50	27	10	2019	17	8	42	0
28	10	2019	5	38	59	28	10	2019	18	2	8	0
29	10	2019	6	32	48	29	10	2019	18	56	26	0
30	10	2019	7	27	32	30	10	2019	19	51	37	0
31	10	2019	8	22	50	31	10	2019	20	47	0	0
1	11	2019	9	18	2	1	11	2019	21	42	9	0
2	11	2019	10	12	25	2	11	2019	22	35	54	0
3	11	2019	11	4	53	3	11	2019	23	27	23	0
4	11	2019	11	54	51	4	11	2019	**	44	48	0
5	11	2019	12	42	7	5	11	2019	0	16	8	0
6	11	2019	13	26	49	6	11	2019	1	2	9	0
7	11	2019	14	9	40	7	11	2019	1	45	44	0

8	11	2019	14	51	26	8	11	2019	2	27	58	0
9	11	2019	15	32	49	9	11	2019	3	9	24	0
10	11	2019	16	14	39	10	11	2019	3	50	49	0
11	11	2019	16	57	36	11	11	2019	4	33	5	0
12	11	2019	17	42	43	12	11	2019	5	16	51	0
13	11	2019	18	30	34	13	11	2019	6	3	12	0
14	11	2019	19	21	25	14	11	2019	6	52	26	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	11	2019	20	15	7	15	11	2019	7	44	39	0
16	11	2019	21	10	58	16	11	2019	8	39	26	0
17	11	2019	22	7	31	17	11	2019	9	35	40	0
18	11	2019	23	3	59	18	11	2019	10	32	11	0
19	11	2019	23	59	10	19	11	2019	11	28	2	0
20	11	2019	**	44	48	20	11	2019	12	22	21	0
21	11	2019	0	52	36	21	11	2019	13	15	5	0
22	11	2019	1	44	34	22	11	2019	14	6	37	0
23	11	2019	2	35	41	23	11	2019	14	57	34	0
24	11	2019	3	26	38	24	11	2019	15	48	59	0
25	11	2019	4	18	38	25	11	2019	16	41	37	0
26	11	2019	5	12	2	26	11	2019	17	35	46	0
27	11	2019	6	6	57	27	11	2019	18	31	18	0
28	11	2019	7	2	47	28	11	2019	19	27	14	0
29	11	2019	7	58	29	29	11	2019	20	22	46	0
30	11	2019	8	53	7	30	11	2019	21	16	32	0
1	12	2019	9	45	24	1	12	2019	22	7	37	0
2	12	2019	10	34	47	2	12	2019	22	55	39	0
3	12	2019	11	21	14	3	12	2019	23	40	53	0
4	12	2019	12	5	4	4	12	2019	**	44	48	0
5	12	2019	12	47	7	5	12	2019	0	23	34	0
6	12	2019	13	28	24	6	12	2019	1	5	7	0
7	12	2019	14	9	42	7	12	2019	1	46	12	0
8	12	2019	14	51	59	8	12	2019	2	27	45	0
9	12	2019	15	36	0	9	12	2019	3	10	43	0
10	12	2019	16	22	48	10	12	2019	3	55	48	0
11	12	2019	17	13	1	11	12	2019	4	44	11	0
12	12	2019	18	6	38	12	12	2019	5	36	0	0
13	12	2019	19	3	5	13	12	2019	6	31	3	0
14	12	2019	20	1	8	14	12	2019	7	28	23	0

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	12	2019	20	58	53	15	12	2019	8	26	25	0
16	12	2019	21	55	22	16	12	2019	9	23	35	0
17	12	2019	22	49	40	17	12	2019	10	19	2	0
18	12	2019	23	41	44	18	12	2019	11	12	14	0
19	12	2019	**	44	48	19	12	2019	12	3	28	0
20	12	2019	0	32	7	20	12	2019	12	53	31	0
21	12	2019	1	21	47	21	12	2019	13	43	10	0



22	12	2019	2	11	31	22	12	2019	14	33	32	0
23	12	2019	3	2	38	23	12	2019	15	25	25	0
24	12	2019	3	55	24	24	12	2019	16	19	1	0
25	12	2019	4	49	50	25	12	2019	17	14	3	0
26	12	2019	5	45	10	26	12	2019	18	9	23	0
27	12	2019	6	40	12	27	12	2019	19	4	5	0
28	12	2019	7	33	57	28	12	2019	19	56	52	0
29	12	2019	8	25	12	29	12	2019	20	46	50	0
30	12	2019	9	13	29	30	12	2019	21	33	48	0
31	12	2019	9	58	56	31	12	2019	22	18	4	0
1	1	2020	10	41	56	1	1	2020	23	0	5	0
2	1	2020	11	23	22	2	1	2020	23	41	8	0
27	12	2018	22	38	1	27	12	2018	10	8	56	1
28	12	2018	23	29	52	28	12	2018	11	1	42	1
29	12	2018	**	44	48	29	12	2018	11	51	43	1
30	12	2018	0	19	23	30	12	2018	12	39	52	1
31	12	2018	1	7	31	31	12	2018	13	27	1	1
32	12	2018	1	55	1	1	1	2019	14	14	8	1
2	1	2019	2	43	1	2	1	2019	15	1	55	1
3	1	2019	3	31	45	3	1	2019	15	50	36	1
4	1	2019	4	21	16	4	1	2019	16	40	6	1
5	1	2019	5	11	16	5	1	2019	17	30	1	1
6	1	2019	6	1	7	6	1	2019	18	19	29	1
7	1	2019	6	50	1	7	1	2019	19	8	11	1
8	1	2019	7	37	46	8	1	2019	19	55	31	1
9	1	2019	8	23	48	9	1	2019	20	41	13	1
10	1	2019	9	8	10	10	1	2019	21	25	24	1
11	1	2019	9	51	5	11	1	2019	22	8	17	1
12	1	2019	10	33	10	12	1	2019	22	50	54	1
13	1	2019	11	15	23	13	1	2019	23	33	56	1
14	1	2019	11	58	30	14	1	2019	**	44	48	1

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	43	30	15	1	2019	0	18	18	1
16	1	2019	13	31	24	16	1	2019	1	5	5	1
17	1	2019	14	22	56	17	1	2019	1	55	11	1
18	1	2019	15	18	48	18	1	2019	2	49	8	1
19	1	2019	16	18	46	19	1	2019	3	47	28	1
20	1	2019	17	21	29	20	1	2019	4	49	8	1
21	1	2019	18	24	49	21	1	2019	5	52	19	1
22	1	2019	19	26	39	22	1	2019	6	54	47	1
23	1	2019	20	25	18	23	1	2019	7	54	38	1
24	1	2019	21	20	45	24	1	2019	8	51	2	1
25	1	2019	22	13	12	25	1	2019	9	44	18	1
26	1	2019	23	3	27	26	1	2019	10	34	56	1
27	1	2019	23	52	24	27	1	2019	11	23	50	1
28	1	2019	**	44	48	28	1	2019	12	11	48	1
29	1	2019	0	40	38	29	1	2019	12	59	41	1
30	1	2019	1	29	17	30	1	2019	13	48	5	1
31	1	2019	2	18	24	31	1	2019	14	37	5	1
32	1	2019	3	7	55	1	2	2019	15	26	29	1

2	2	2019	3	57	29	2	2	2019	16	15	53	1
3	2	2019	4	46	30	3	2	2019	17	4	29	1
4	2	2019	5	34	18	4	2	2019	17	52	6	1
5	2	2019	6	20	52	5	2	2019	18	38	21	1
6	2	2019	7	5	48	6	2	2019	19	23	4	1
7	2	2019	7	49	17	7	2	2019	20	6	33	1
8	2	2019	8	31	41	8	2	2019	20	49	14	1
9	2	2019	9	13	32	9	2	2019	21	31	33	1
10	2	2019	9	55	36	10	2	2019	22	14	41	1
11	2	2019	10	38	57	11	2	2019	22	59	23	1
12	2	2019	11	24	21	12	2	2019	23	46	30	1
13	2	2019	12	12	43	13	2	2019	**	44	48	1
14	2	2019	13	4	37	14	2	2019	0	36	58	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	14	0	30	15	2	2019	1	31	3	1
16	2	2019	15	0	4	16	2	2019	2	29	9	1
17	2	2019	16	1	54	17	2	2019	3	30	4	1
18	2	2019	17	4	9	18	2	2019	4	32	8	1
19	2	2019	18	5	1	19	2	2019	5	33	26	1
20	2	2019	19	3	11	20	2	2019	6	32	28	1
21	2	2019	19	58	45	21	2	2019	7	28	36	1
22	2	2019	20	51	59	22	2	2019	8	22	15	1
23	2	2019	21	43	29	23	2	2019	9	13	51	1
24	2	2019	22	34	0	24	2	2019	10	4	10	1
25	2	2019	23	23	53	25	2	2019	10	53	45	1
26	2	2019	**	44	48	26	2	2019	11	43	14	1
27	2	2019	0	13	58	27	2	2019	12	32	58	1
28	2	2019	1	4	5	28	2	2019	13	22	49	1
29	2	2019	1	54	1	1	3	2019	14	12	27	1
2	3	2019	2	43	21	2	3	2019	15	1	27	1
3	3	2019	3	31	36	3	3	2019	15	49	12	1
4	3	2019	4	18	15	4	3	2019	16	35	42	1
5	3	2019	5	3	38	5	3	2019	17	20	54	1
6	3	2019	5	47	35	6	3	2019	18	4	51	1
7	3	2019	6	30	26	7	3	2019	18	47	56	1
8	3	2019	7	12	39	8	3	2019	19	30	40	1
9	3	2019	7	54	47	9	3	2019	20	13	32	1
10	3	2019	8	37	35	10	3	2019	20	57	37	1
11	3	2019	9	22	2	11	3	2019	21	43	34	1
12	3	2019	10	8	47	12	3	2019	22	32	4	1
13	3	2019	10	58	28	13	3	2019	23	23	40	1
14	3	2019	11	51	21	14	3	2019	**	44	48	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	47	26	15	3	2019	0	18	16	1
16	3	2019	13	46	10	16	3	2019	1	16	0	1
17	3	2019	14	46	8	17	3	2019	2	15	26	1

18	3	2019	15	45	54	18	3	2019	3	15	8	1
19	3	2019	16	44	19	19	3	2019	4	13	48	1
20	3	2019	17	40	39	20	3	2019	5	10	33	1
21	3	2019	18	35	15	21	3	2019	6	5	10	1
22	3	2019	19	28	28	22	3	2019	6	58	18	1
23	3	2019	20	20	49	23	3	2019	7	50	18	1
24	3	2019	21	12	48	24	3	2019	8	41	45	1
25	3	2019	22	4	41	25	3	2019	9	33	6	1
26	3	2019	22	56	11	26	3	2019	10	24	22	1
27	3	2019	23	47	34	27	3	2019	11	15	32	1
28	3	2019	**	44	48	28	3	2019	12	6	26	1
29	3	2019	0	38	6	29	3	2019	12	56	27	1
30	3	2019	1	27	19	30	3	2019	13	45	11	1
31	3	2019	2	14	55	31	3	2019	14	32	14	1
32	3	2019	3	0	36	1	4	2019	15	17	47	1
2	4	2019	3	44	57	2	4	2019	16	2	6	1
3	4	2019	4	28	6	3	4	2019	16	45	29	1
4	4	2019	5	10	33	4	4	2019	17	28	27	1
5	4	2019	5	52	56	5	4	2019	18	11	41	1
6	4	2019	6	35	53	6	4	2019	18	55	39	1
7	4	2019	7	20	4	7	4	2019	19	41	25	1
8	4	2019	8	6	28	8	4	2019	20	29	32	1
9	4	2019	8	55	31	9	4	2019	21	20	23	1
10	4	2019	9	47	30	10	4	2019	22	14	4	1
11	4	2019	10	42	11	11	4	2019	23	9	56	1
12	4	2019	11	39	1	12	4	2019	**	44	48	1
13	4	2019	12	37	6	13	4	2019	0	7	36	1
14	4	2019	13	35	4	14	4	2019	1	5	34	1

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	31	58	15	4	2019	2	2	38	1
16	4	2019	15	27	18	16	4	2019	2	58	9	1
17	4	2019	16	21	0	17	4	2019	3	51	56	1
18	4	2019	17	13	44	18	4	2019	4	44	11	1
19	4	2019	18	6	2	19	4	2019	5	35	52	1
20	4	2019	18	58	22	20	4	2019	6	27	24	1
21	4	2019	19	51	3	21	4	2019	7	19	13	1
22	4	2019	20	44	4	22	4	2019	8	11	32	1
23	4	2019	21	36	46	23	4	2019	9	4	5	1
24	4	2019	22	29	2	24	4	2019	9	56	23	1
25	4	2019	23	20	0	25	4	2019	10	48	4	1
26	4	2019	**	44	48	26	4	2019	11	38	19	1
27	4	2019	0	9	5	27	4	2019	12	26	45	1
28	4	2019	0	56	3	28	4	2019	13	13	8	1
29	4	2019	1	40	50	29	4	2019	13	57	51	1
30	4	2019	2	24	19	30	4	2019	14	41	27	1
31	4	2019	3	6	49	1	5	2019	15	24	24	1
2	5	2019	3	49	4	2	5	2019	16	7	26	1
3	5	2019	4	31	48	3	5	2019	16	51	21	1
4	5	2019	5	15	48	4	5	2019	17	36	44	1
5	5	2019	6	1	45	5	5	2019	18	24	35	1

6	5	2019	6	50	36	6	5	2019	19	15	23	1
7	5	2019	7	42	33	7	5	2019	20	9	9	1
8	5	2019	8	37	27	8	5	2019	21	5	30	1
9	5	2019	9	34	35	9	5	2019	22	3	22	1
10	5	2019	10	32	37	10	5	2019	23	1	9	1
11	5	2019	11	30	17	11	5	2019	23	58	3	1
12	5	2019	12	26	41	12	5	2019	**	44	48	1
13	5	2019	13	21	11	13	5	2019	0	52	56	1
14	5	2019	14	13	53	14	5	2019	1	45	46	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	5	2019	15	5	9	15	5	2019	2	36	55	1
16	5	2019	15	55	55	16	5	2019	3	26	56	1
17	5	2019	16	46	57	17	5	2019	4	17	0	1
18	5	2019	17	38	42	18	5	2019	5	7	35	1
19	5	2019	18	31	19	19	5	2019	5	59	8	1
20	5	2019	19	24	35	20	5	2019	6	51	38	1
21	5	2019	20	17	37	21	5	2019	7	44	36	1
22	5	2019	21	10	1	22	5	2019	8	37	15	1
23	5	2019	22	0	46	23	5	2019	9	29	1	1
24	5	2019	22	49	19	24	5	2019	10	19	1	1
25	5	2019	23	35	33	25	5	2019	11	6	51	1
26	5	2019	**	44	48	26	5	2019	11	52	28	1
27	5	2019	0	19	27	27	5	2019	12	36	22	1
28	5	2019	1	2	7	28	5	2019	13	19	17	1
29	5	2019	1	44	3	29	5	2019	14	1	53	1
30	5	2019	2	26	7	30	5	2019	14	45	1	1
31	5	2019	3	9	14	31	5	2019	15	29	35	1
32	5	2019	3	54	15	1	6	2019	16	16	19	1
2	6	2019	4	41	54	2	6	2019	17	6	11	1
3	6	2019	5	33	10	3	6	2019	17	59	36	1
4	6	2019	6	28	0	4	6	2019	18	56	15	1
5	6	2019	7	25	50	5	6	2019	19	55	11	1
6	6	2019	8	25	19	6	6	2019	20	54	49	1
7	6	2019	9	24	40	7	6	2019	21	53	10	1
8	6	2019	10	22	26	8	6	2019	22	49	31	1
9	6	2019	11	17	57	9	6	2019	23	43	10	1
10	6	2019	12	11	0	10	6	2019	**	44	48	1
11	6	2019	13	2	5	11	6	2019	0	34	22	1
12	6	2019	13	51	53	12	6	2019	1	23	55	1
13	6	2019	14	41	26	13	6	2019	2	12	34	1
14	6	2019	15	31	35	14	6	2019	3	1	36	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	6	2019	16	22	42	15	6	2019	3	51	31	1
16	6	2019	17	14	54	16	6	2019	4	42	38	1
17	6	2019	18	7	46	17	6	2019	5	34	50	1
18	6	2019	19	0	18	18	6	2019	6	27	30	1

19	6	2019	19	51	56	19	6	2019	7	19	39	1
20	6	2019	20	41	46	20	6	2019	8	10	42	1
21	6	2019	21	29	17	21	6	2019	8	59	48	1
22	6	2019	22	14	27	22	6	2019	9	46	39	1
23	6	2019	22	57	41	23	6	2019	10	31	25	1
24	6	2019	23	39	22	24	6	2019	11	14	29	1
25	6	2019	**	44	48	25	6	2019	11	56	39	1
26	6	2019	0	20	46	26	6	2019	12	38	55	1
27	6	2019	1	2	41	27	6	2019	13	22	6	1
28	6	2019	1	46	4	28	6	2019	14	7	11	1
29	6	2019	2	31	54	29	6	2019	14	54	58	1
30	6	2019	3	20	54	30	6	2019	15	46	24	1
31	6	2019	4	14	4	1	7	2019	16	41	48	1
2	7	2019	5	11	9	2	7	2019	17	40	36	1
3	7	2019	6	11	12	3	7	2019	18	41	25	1
4	7	2019	7	12	29	4	7	2019	19	42	19	1
5	7	2019	8	12	54	5	7	2019	20	41	14	1
6	7	2019	9	10	59	6	7	2019	21	37	30	1
7	7	2019	10	6	22	7	7	2019	22	30	50	1
8	7	2019	10	59	3	8	7	2019	23	21	40	1
9	7	2019	11	49	45	9	7	2019	**	44	48	1
10	7	2019	12	39	25	10	7	2019	0	10	55	1
11	7	2019	13	28	47	11	7	2019	0	59	36	1
12	7	2019	14	18	44	12	7	2019	1	48	21	1
13	7	2019	15	9	42	13	7	2019	2	38	15	1
14	7	2019	16	1	31	14	7	2019	3	29	14	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	7	2019	16	53	40	15	7	2019	4	21	4	1
16	7	2019	17	45	8	16	7	2019	5	12	59	1
17	7	2019	18	35	24	17	7	2019	6	4	2	1
18	7	2019	19	23	45	18	7	2019	6	53	46	1
19	7	2019	20	9	50	19	7	2019	7	41	28	1
20	7	2019	20	53	48	20	7	2019	8	27	2	1
21	7	2019	21	36	4	21	7	2019	9	10	44	1
22	7	2019	22	17	8	22	7	2019	9	53	1	1
23	7	2019	22	58	13	23	7	2019	10	34	41	1
24	7	2019	23	40	6	24	7	2019	11	16	46	1
25	7	2019	**	44	48	25	7	2019	12	0	5	1
26	7	2019	0	23	46	26	7	2019	12	45	39	1
27	7	2019	1	10	16	27	7	2019	13	34	12	1
28	7	2019	2	0	12	28	7	2019	14	26	36	1
29	7	2019	2	54	33	29	7	2019	15	23	4	1
30	7	2019	3	52	49	30	7	2019	16	22	49	1
31	7	2019	4	53	52	31	7	2019	17	24	18	1
32	7	2019	5	55	49	1	8	2019	18	25	31	1
2	8	2019	6	56	37	2	8	2019	19	24	34	1
3	8	2019	7	54	54	3	8	2019	20	20	56	1
4	8	2019	8	50	31	4	8	2019	21	14	33	1
5	8	2019	9	43	40	5	8	2019	22	5	57	1
6	8	2019	10	35	4	6	8	2019	22	56	4	1

7	8	2019	11	25	38	7	8	2019	23	45	45	1
8	8	2019	12	15	57	8	8	2019	**	44	48	1
9	8	2019	13	6	41	9	8	2019	0	35	28	1
10	8	2019	13	58	5	10	8	2019	1	26	8	1
11	8	2019	14	49	47	11	8	2019	2	17	28	1
12	8	2019	15	41	10	12	8	2019	3	9	1	1
13	8	2019	16	31	20	13	8	2019	4	0	3	1
14	8	2019	17	19	55	14	8	2019	4	49	42	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	6	34	15	8	2019	5	37	50	1
16	8	2019	18	51	8	16	8	2019	6	23	57	1
17	8	2019	19	33	54	17	8	2019	7	8	12	1
18	8	2019	20	15	25	18	8	2019	7	50	56	1
19	8	2019	20	56	9	19	8	2019	8	32	40	1
20	8	2019	21	37	17	20	8	2019	9	14	9	1
21	8	2019	22	19	34	21	8	2019	9	56	26	1
22	8	2019	23	3	54	22	8	2019	10	40	17	1
23	8	2019	23	51	9	23	8	2019	11	26	33	1
24	8	2019	**	44	48	24	8	2019	12	16	2	1
25	8	2019	0	42	7	25	8	2019	13	9	1	1
26	8	2019	1	36	48	26	8	2019	14	5	37	1
27	8	2019	2	35	13	27	8	2019	15	5	5	1
28	8	2019	3	35	52	28	8	2019	16	5	45	1
29	8	2019	4	37	1	29	8	2019	17	5	57	1
30	8	2019	5	37	0	30	8	2019	18	4	11	1
31	8	2019	6	34	47	31	8	2019	19	0	14	1
32	8	2019	7	30	30	1	9	2019	19	54	13	1
2	9	2019	8	24	23	2	9	2019	20	46	38	1
3	9	2019	9	17	5	3	9	2019	21	38	16	1
4	9	2019	10	9	17	4	9	2019	22	29	46	1
5	9	2019	11	1	22	5	9	2019	23	21	16	1
6	9	2019	11	53	34	6	9	2019	**	44	48	1
7	9	2019	12	45	54	7	9	2019	0	13	19	1
8	9	2019	13	37	45	8	9	2019	1	5	23	1
9	9	2019	14	28	29	9	9	2019	1	56	50	1
10	9	2019	15	17	22	10	9	2019	2	47	2	1
11	9	2019	16	4	19	11	9	2019	3	35	18	1
12	9	2019	16	49	20	12	9	2019	4	21	50	1
13	9	2019	17	32	32	13	9	2019	5	6	29	1
14	9	2019	18	14	23	14	9	2019	5	49	36	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	55	31	15	9	2019	6	31	39	1
16	9	2019	19	36	23	16	9	2019	7	13	15	1
17	9	2019	20	18	9	17	9	2019	7	55	6	1
18	9	2019	21	1	30	18	9	2019	8	38	13	1
19	9	2019	21	47	10	19	9	2019	9	23	13	1

20	9	2019	22	35	49	20	9	2019	10	10	48	1
21	9	2019	23	27	48	21	9	2019	11	1	28	1
22	9	2019	**	44	48	22	9	2019	11	55	9	1
23	9	2019	0	22	49	23	9	2019	12	51	33	1
24	9	2019	1	20	41	24	9	2019	13	49	49	1
25	9	2019	2	19	49	25	9	2019	14	48	30	1
26	9	2019	3	18	51	26	9	2019	15	46	25	1
27	9	2019	4	16	44	27	9	2019	16	42	42	1
28	9	2019	5	12	58	28	9	2019	17	37	32	1
29	9	2019	6	8	1	29	9	2019	18	31	15	1
30	9	2019	7	2	11	30	9	2019	19	24	23	1
31	9	2019	7	56	2	1	10	2019	20	17	31	1
2	10	2019	8	49	59	2	10	2019	21	10	59	1
3	10	2019	9	44	3	3	10	2019	22	4	31	1
4	10	2019	10	38	0	4	10	2019	22	58	14	1
5	10	2019	11	31	29	5	10	2019	23	51	15	1
6	10	2019	12	23	39	6	10	2019	**	44	48	1
7	10	2019	13	13	53	7	10	2019	0	42	46	1
8	10	2019	14	1	50	8	10	2019	1	32	16	1
9	10	2019	14	47	20	9	10	2019	2	19	32	1
10	10	2019	15	30	55	10	10	2019	3	4	29	1
11	10	2019	16	13	4	11	10	2019	3	47	56	1
12	10	2019	16	54	22	12	10	2019	4	30	14	1
13	10	2019	17	35	31	13	10	2019	5	12	1	1
14	10	2019	18	17	5	14	10	2019	5	53	57	1

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	10	2019	19	0	7	15	10	2019	6	36	43	1
16	10	2019	19	45	17	16	10	2019	7	21	22	1
17	10	2019	20	33	6	17	10	2019	8	8	20	1
18	10	2019	21	23	53	18	10	2019	8	58	2	1
19	10	2019	22	17	31	19	10	2019	9	50	32	1
20	10	2019	23	13	8	20	10	2019	10	45	17	1
21	10	2019	**	44	48	21	10	2019	11	41	31	1
22	10	2019	0	10	14	22	10	2019	12	38	18	1
23	10	2019	1	7	22	23	10	2019	13	34	29	1
24	10	2019	2	3	38	24	10	2019	14	29	27	1
25	10	2019	2	58	39	25	10	2019	15	23	1	1
26	10	2019	3	52	27	26	10	2019	16	15	47	1
27	10	2019	4	45	56	27	10	2019	17	8	23	1
28	10	2019	5	39	31	28	10	2019	18	1	25	1
29	10	2019	6	33	45	29	10	2019	18	55	19	1
30	10	2019	7	28	49	30	10	2019	19	50	11	1
31	10	2019	8	24	24	31	10	2019	20	45	21	1
1	11	2019	9	19	45	1	11	2019	21	40	23	1
2	11	2019	10	14	11	2	11	2019	22	34	9	1
3	11	2019	11	6	35	3	11	2019	23	25	44	1
4	11	2019	11	56	23	4	11	2019	**	44	48	1
5	11	2019	12	43	26	5	11	2019	0	14	42	1
6	11	2019	13	27	52	6	11	2019	1	0	59	1
7	11	2019	14	10	24	7	11	2019	1	44	51	1

8	11	2019	14	51	50	8	11	2019	2	27	25	1
9	11	2019	15	32	52	9	11	2019	3	9	10	1
10	11	2019	16	14	21	10	11	2019	3	50	57	1
11	11	2019	16	56	58	11	11	2019	4	33	33	1
12	11	2019	17	41	44	12	11	2019	5	17	40	1
13	11	2019	18	29	17	13	11	2019	6	4	21	1
14	11	2019	19	19	53	14	11	2019	6	53	51	1

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN						o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		
15	11	2019	20	13	24	15	11	2019	7	46	18		1
16	11	2019	21	9	11	16	11	2019	8	41	11		1
17	11	2019	22	5	48	17	11	2019	9	37	26		1
18	11	2019	23	2	26	18	11	2019	10	33	50		1
19	11	2019	23	57	54	19	11	2019	11	29	27		1
20	11	2019	**	44	48	20	11	2019	12	23	27		1
21	11	2019	0	51	41	21	11	2019	13	15	48		1
22	11	2019	1	44	3	22	11	2019	14	6	56		1
23	11	2019	2	35	35	23	11	2019	14	57	27		1
24	11	2019	3	26	58	24	11	2019	15	48	27		1
25	11	2019	4	19	23	25	11	2019	16	40	41		1
26	11	2019	5	13	10	26	11	2019	17	34	29		1
27	11	2019	6	8	23	27	11	2019	18	29	45		1
28	11	2019	7	4	27	28	11	2019	19	25	30		1
29	11	2019	8	0	15	29	11	2019	20	20	59		1
30	11	2019	8	54	52	30	11	2019	21	14	49		1
1	12	2019	9	47	2	1	12	2019	22	6	4		1
2	12	2019	10	36	13	2	12	2019	22	54	21		1
3	12	2019	11	22	24	3	12	2019	23	39	51		1
4	12	2019	12	5	56	4	12	2019	**	44	48		1
5	12	2019	12	47	40	5	12	2019	0	22	52		1
6	12	2019	13	28	37	6	12	2019	1	4	45		1
7	12	2019	14	9	34	7	12	2019	1	46	10		1
8	12	2019	14	51	29	8	12	2019	2	28	5		1
9	12	2019	15	35	9	9	12	2019	3	11	23		1
10	12	2019	16	21	39	10	12	2019	3	56	49		1
11	12	2019	17	11	34	11	12	2019	4	45	30		1
12	12	2019	18	4	58	12	12	2019	5	37	34		1
13	12	2019	19	1	19	13	12	2019	6	32	47		1
14	12	2019	19	59	22	14	12	2019	7	30	10		1

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN						o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		
15	12	2019	20	57	15	15	12	2019	8	28	7		1
16	12	2019	21	54	0	16	12	2019	9	25	5		1
17	12	2019	22	48	38	17	12	2019	10	20	15		1
18	12	2019	23	41	4	18	12	2019	11	13	5		1
19	12	2019	**	44	48	19	12	2019	12	3	55		1
20	12	2019	0	31	53	20	12	2019	12	53	33		1
21	12	2019	1	21	57	21	12	2019	13	42	47		1



22	12	2019	2	12	6	22	12	2019	14	32	46	1
23	12	2019	3	3	36	23	12	2019	15	24	17	1
24	12	2019	3	56	43	24	12	2019	16	17	34	1
25	12	2019	4	51	24	25	12	2019	17	12	23	1
26	12	2019	5	46	54	26	12	2019	18	7	36	1
27	12	2019	6	41	58	27	12	2019	19	2	20	1
28	12	2019	7	35	40	28	12	2019	19	55	14	1
29	12	2019	8	26	44	29	12	2019	20	45	24	1
30	12	2019	9	14	47	30	12	2019	21	32	38	1
31	12	2019	9	59	56	31	12	2019	22	17	13	1
1	1	2020	10	42	38	1	1	2020	22	59	33	1
2	1	2020	11	23	43	2	1	2020	23	40	57	1
27	12	2018	22	37	15	27	12	2018	10	9	52	2
28	12	2018	23	29	29	28	12	2018	11	2	17	2
29	12	2018	**	44	48	29	12	2018	11	51	55	2
30	12	2018	0	19	23	30	12	2018	12	39	42	2
31	12	2018	1	7	53	31	12	2018	13	26	29	2
32	12	2018	1	55	43	1	1	2019	14	13	16	2
2	1	2019	2	44	2	2	1	2019	15	0	46	2
3	1	2019	3	33	2	3	1	2019	15	49	13	2
4	1	2019	4	22	45	4	1	2019	16	38	33	2
5	1	2019	5	12	53	5	1	2019	17	28	23	2
6	1	2019	6	2	45	6	1	2019	18	17	52	2
7	1	2019	6	51	36	7	1	2019	19	6	40	2
8	1	2019	7	39	12	8	1	2019	19	54	10	2
9	1	2019	8	25	2	9	1	2019	20	40	6	2
10	1	2019	9	9	9	10	1	2019	21	24	33	2
11	1	2019	9	51	47	11	1	2019	22	7	44	2
12	1	2019	10	33	33	12	1	2019	22	50	40	2
13	1	2019	11	15	26	13	1	2019	23	34	2	2
14	1	2019	11	58	14	14	1	2019	**	44	48	2

TARIKH LATITUD			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	1	2019	12	42	54	15	1	2019	0	18	45	2
16	1	2019	13	30	28	16	1	2019	1	5	52	2
17	1	2019	14	21	42	17	1	2019	1	56	17	2
18	1	2019	15	17	19	18	1	2019	2	50	30	2
19	1	2019	16	17	9	19	1	2019	3	49	3	2
20	1	2019	17	19	50	20	1	2019	4	50	47	2
21	1	2019	18	23	19	21	1	2019	5	53	54	2
22	1	2019	19	25	23	22	1	2019	6	56	11	2
23	1	2019	20	24	22	23	1	2019	7	55	44	2
24	1	2019	21	20	12	24	1	2019	8	51	47	2
25	1	2019	22	13	2	25	1	2019	9	44	39	2
26	1	2019	23	3	40	26	1	2019	10	34	54	2
27	1	2019	23	52	59	27	1	2019	11	23	26	2
28	1	2019	**	44	48	28	1	2019	12	11	2	2
29	1	2019	0	41	34	29	1	2019	12	58	37	2
30	1	2019	1	30	29	30	1	2019	13	46	46	2
31	1	2019	2	19	49	31	1	2019	14	35	34	2
32	1	2019	3	9	29	1	2	2019	15	24	52	2

2	2	2019	3	59	7	2	2	2019	16	14	15	2
3	2	2019	4	48	6	3	2	2019	17	2	55	2
4	2	2019	5	35	48	4	2	2019	17	50	41	2
5	2	2019	6	22	11	5	2	2019	18	37	8	2
6	2	2019	7	6	53	6	2	2019	19	22	8	2
7	2	2019	7	50	4	7	2	2019	20	5	54	2
8	2	2019	8	32	11	8	2	2019	20	48	54	2
9	2	2019	9	13	42	9	2	2019	21	31	32	2
10	2	2019	9	55	27	10	2	2019	22	15	1	2
11	2	2019	10	38	28	11	2	2019	23	0	2	2
12	2	2019	11	23	32	12	2	2019	23	47	27	2
13	2	2019	12	11	36	13	2	2019	**	44	48	2
14	2	2019	13	3	14	14	2	2019	0	38	14	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	58	56	15	2	2019	1	32	33	2
16	2	2019	14	58	25	16	2	2019	2	30	47	2
17	2	2019	16	0	18	17	2	2019	3	31	43	2
18	2	2019	17	2	44	18	2	2019	4	33	39	2
19	2	2019	18	3	54	19	2	2019	5	34	42	2
20	2	2019	19	2	26	20	2	2019	6	33	25	2
21	2	2019	19	58	24	21	2	2019	7	29	9	2
22	2	2019	20	52	1	22	2	2019	8	22	24	2
23	2	2019	21	43	55	23	2	2019	9	13	36	2
24	2	2019	22	34	48	24	2	2019	10	3	32	2
25	2	2019	23	24	59	25	2	2019	10	52	48	2
26	2	2019	**	44	48	26	2	2019	11	41	59	2
27	2	2019	0	15	20	27	2	2019	12	31	31	2
28	2	2019	1	5	38	28	2	2019	13	21	13	2
29	2	2019	1	55	39	1	3	2019	14	10	48	2
2	3	2019	2	44	59	2	3	2019	14	59	51	2
3	3	2019	3	33	8	3	3	2019	15	47	43	2
4	3	2019	4	19	38	4	3	2019	16	34	25	2
5	3	2019	5	4	47	5	3	2019	17	19	52	2
6	3	2019	5	48	29	6	3	2019	18	4	6	2
7	3	2019	6	31	1	7	3	2019	18	47	30	2
8	3	2019	7	12	55	8	3	2019	19	30	34	2
9	3	2019	7	54	43	9	3	2019	20	13	46	2
10	3	2019	8	37	11	10	3	2019	20	58	11	2
11	3	2019	9	21	19	11	3	2019	21	44	27	2
12	3	2019	10	7	45	12	3	2019	22	33	15	2
13	3	2019	10	57	10	13	3	2019	23	25	5	2
14	3	2019	11	49	49	14	3	2019	**	44	48	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	45	48	15	3	2019	0	19	52	2
16	3	2019	13	44	31	16	3	2019	1	17	40	2
17	3	2019	14	44	36	17	3	2019	2	17	2	2

18	3	2019	15	44	37	18	3	2019	3	16	33	2
19	3	2019	16	43	22	19	3	2019	4	14	55	2
20	3	2019	17	40	5	20	3	2019	5	11	18	2
21	3	2019	18	35	6	21	3	2019	6	5	31	2
22	3	2019	19	28	42	22	3	2019	6	58	15	2
23	3	2019	20	21	27	23	3	2019	7	49	51	2
24	3	2019	21	13	47	24	3	2019	8	40	56	2
25	3	2019	22	5	57	25	3	2019	9	31	57	2
26	3	2019	22	57	41	26	3	2019	10	22	58	2
27	3	2019	23	49	11	27	3	2019	11	13	57	2
28	3	2019	**	44	48	28	3	2019	12	4	47	2
29	3	2019	0	39	46	29	3	2019	12	54	48	2
30	3	2019	1	28	55	30	3	2019	13	43	38	2
31	3	2019	2	16	22	31	3	2019	14	30	52	2
32	3	2019	3	1	51	1	4	2019	15	16	39	2
2	4	2019	3	45	57	2	4	2019	16	1	15	2
3	4	2019	4	28	48	3	4	2019	16	44	56	2
4	4	2019	5	10	56	4	4	2019	17	28	14	2
5	4	2019	5	52	59	5	4	2019	18	11	48	2
6	4	2019	6	35	35	6	4	2019	18	56	7	2
7	4	2019	7	19	26	7	4	2019	19	42	13	2
8	4	2019	8	5	31	8	4	2019	20	30	38	2
9	4	2019	8	54	16	9	4	2019	21	21	45	2
10	4	2019	9	46	1	10	4	2019	22	15	38	2
11	4	2019	10	40	33	11	4	2019	23	11	37	2
12	4	2019	11	37	20	12	4	2019	**	44	48	2
13	4	2019	12	35	30	13	4	2019	0	9	16	2
14	4	2019	13	33	40	14	4	2019	1	7	5	2

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	30	51	15	4	2019	2	3	54	2
16	4	2019	15	26	33	16	4	2019	2	59	5	2
17	4	2019	16	20	39	17	4	2019	3	52	29	2
18	4	2019	17	13	47	18	4	2019	4	44	20	2
19	4	2019	18	6	30	19	4	2019	5	35	36	2
20	4	2019	18	59	11	20	4	2019	6	26	45	2
21	4	2019	19	52	12	21	4	2019	7	18	13	2
22	4	2019	20	45	29	22	4	2019	8	10	14	2
23	4	2019	21	38	22	23	4	2019	9	2	33	2
24	4	2019	22	30	43	24	4	2019	9	54	44	2
25	4	2019	23	21	40	25	4	2019	10	46	23	2
26	4	2019	**	44	48	26	4	2019	11	36	42	2
27	4	2019	0	10	38	27	4	2019	12	25	18	2
28	4	2019	0	57	25	28	4	2019	13	11	54	2
29	4	2019	1	41	57	29	4	2019	13	56	53	2
30	4	2019	2	25	9	30	4	2019	14	40	46	2
31	4	2019	3	7	20	1	5	2019	15	24	2	2
2	5	2019	3	49	15	2	5	2019	16	7	25	2
3	5	2019	4	31	39	3	5	2019	16	51	41	2
4	5	2019	5	15	18	4	5	2019	17	37	25	2
5	5	2019	6	0	54	5	5	2019	18	25	36	2

6	5	2019	6	49	26	6	5	2019	19	16	41	2
7	5	2019	7	41	7	7	5	2019	20	10	41	2
8	5	2019	8	35	50	8	5	2019	21	7	10	2
9	5	2019	9	32	53	9	5	2019	22	5	4	2
10	5	2019	10	30	58	10	5	2019	23	2	44	2
11	5	2019	11	28	47	11	5	2019	23	59	26	2
12	5	2019	12	25	27	12	5	2019	**	44	48	2
13	5	2019	13	20	17	13	5	2019	0	54	0	2
14	5	2019	14	13	22	14	5	2019	1	46	28	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	5	2019	15	5	2	15	5	2019	2	37	14	2
16	5	2019	15	56	12	16	5	2019	3	26	50	2
17	5	2019	16	47	38	17	5	2019	4	16	30	2
18	5	2019	17	39	43	18	5	2019	5	6	44	2
19	5	2019	18	32	38	19	5	2019	5	57	57	2
20	5	2019	19	26	7	20	5	2019	6	50	12	2
21	5	2019	20	19	18	21	5	2019	7	42	59	2
22	5	2019	21	11	43	22	5	2019	8	35	33	2
23	5	2019	22	2	24	23	5	2019	9	27	21	2
24	5	2019	22	50	47	24	5	2019	10	17	27	2
25	5	2019	23	36	48	25	5	2019	11	5	30	2
26	5	2019	**	44	48	26	5	2019	11	51	22	2
27	5	2019	0	20	25	27	5	2019	12	35	33	2
28	5	2019	1	2	46	28	5	2019	13	18	47	2
29	5	2019	1	44	23	29	5	2019	14	1	43	2
30	5	2019	2	26	7	30	5	2019	14	45	11	2
31	5	2019	3	8	52	31	5	2019	15	30	7	2
32	5	2019	3	53	33	1	6	2019	16	17	11	2
2	6	2019	4	40	52	2	6	2019	17	7	22	2
3	6	2019	5	31	51	3	6	2019	18	1	3	2
4	6	2019	6	26	27	4	6	2019	18	57	54	2
5	6	2019	7	24	8	5	6	2019	19	56	54	2
6	6	2019	8	23	37	6	6	2019	20	56	28	2
7	6	2019	9	23	6	7	6	2019	21	54	39	2
8	6	2019	10	21	6	8	6	2019	22	50	42	2
9	6	2019	11	16	56	9	6	2019	23	44	1	2
10	6	2019	12	10	22	10	6	2019	**	44	48	2
11	6	2019	13	1	50	11	6	2019	0	34	49	2
12	6	2019	13	52	2	12	6	2019	1	23	58	2
13	6	2019	14	41	58	13	6	2019	2	12	14	2
14	6	2019	15	32	28	14	6	2019	3	0	53	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	6	2019	16	23	55	15	6	2019	3	50	27	2
16	6	2019	17	16	22	16	6	2019	4	41	16	2
17	6	2019	18	9	24	17	6	2019	5	33	16	2
18	6	2019	19	2	0	18	6	2019	6	25	49	2

19	6	2019	19	53	37	19	6	2019	7	17	57	2
20	6	2019	20	43	19	20	6	2019	8	9	5	2
21	6	2019	21	30	38	21	6	2019	8	58	21	2
22	6	2019	22	15	33	22	6	2019	9	45	26	2
23	6	2019	22	58	29	23	6	2019	10	30	29	2
24	6	2019	23	39	51	24	6	2019	11	13	51	2
25	6	2019	**	44	48	25	6	2019	11	56	20	2
26	6	2019	0	20	55	26	6	2019	12	38	56	2
27	6	2019	1	2	29	27	6	2019	13	22	28	2
28	6	2019	1	45	31	28	6	2019	14	7	53	2
29	6	2019	2	31	1	29	6	2019	14	56	0	2
30	6	2019	3	19	42	30	6	2019	15	47	43	2
31	6	2019	4	12	36	1	7	2019	16	43	22	2
2	7	2019	5	9	30	2	7	2019	17	42	18	2
3	7	2019	6	9	29	3	7	2019	18	43	7	2
4	7	2019	7	10	50	4	7	2019	19	43	53	2
5	7	2019	8	11	28	5	7	2019	20	42	33	2
6	7	2019	9	9	51	6	7	2019	21	38	29	2
7	7	2019	10	5	35	7	7	2019	22	31	26	2
8	7	2019	10	58	40	8	7	2019	23	21	52	2
9	7	2019	11	49	46	9	7	2019	**	44	48	2
10	7	2019	12	39	50	10	7	2019	0	10	42	2
11	7	2019	13	29	34	11	7	2019	0	58	59	2
12	7	2019	14	19	51	12	7	2019	1	47	24	2
13	7	2019	15	11	6	13	7	2019	2	36	59	2
14	7	2019	16	3	7	14	7	2019	3	27	44	2

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	7	2019	16	55	22	15	7	2019	4	19	25	2
16	7	2019	17	46	50	16	7	2019	5	11	17	2
17	7	2019	18	37	0	17	7	2019	6	2	22	2
18	7	2019	19	25	11	18	7	2019	6	52	14	2
19	7	2019	20	11	2	19	7	2019	7	40	9	2
20	7	2019	20	54	43	20	7	2019	8	25	59	2
21	7	2019	21	36	41	21	7	2019	9	9	59	2
22	7	2019	22	17	25	22	7	2019	9	52	35	2
23	7	2019	22	58	10	23	7	2019	10	34	34	2
24	7	2019	23	39	42	24	7	2019	11	16	59	2
25	7	2019	**	44	48	25	7	2019	12	0	39	2
26	7	2019	0	23	2	26	7	2019	12	46	32	2
27	7	2019	1	9	12	27	7	2019	13	35	24	2
28	7	2019	1	58	51	28	7	2019	14	28	4	2
29	7	2019	2	52	59	29	7	2019	15	24	43	2
30	7	2019	3	51	7	30	7	2019	16	24	32	2
31	7	2019	4	52	10	31	7	2019	17	25	56	2
32	7	2019	5	54	16	1	8	2019	18	26	58	2
2	8	2019	6	55	20	2	8	2019	19	25	42	2
3	8	2019	7	53	57	3	8	2019	20	21	41	2
4	8	2019	8	49	59	4	8	2019	21	14	53	2
5	8	2019	9	43	32	5	8	2019	22	5	53	2
6	8	2019	10	35	21	6	8	2019	22	55	35	2

7	8	2019	11	26	18	7	8	2019	23	44	54	2
8	8	2019	12	16	58	8	8	2019	**	44	48	2
9	8	2019	13	8	0	9	8	2019	0	34	17	2
10	8	2019	13	59	38	10	8	2019	1	24	42	2
11	8	2019	14	51	27	11	8	2019	2	15	51	2
12	8	2019	15	42	53	12	8	2019	3	7	19	2
13	8	2019	16	32	59	13	8	2019	3	58	22	2
14	8	2019	17	21	25	14	8	2019	4	48	8	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	7	50	15	8	2019	5	36	27	2
16	8	2019	18	52	9	16	8	2019	6	22	48	2
17	8	2019	19	34	37	17	8	2019	7	7	20	2
18	8	2019	20	15	48	18	8	2019	7	50	23	2
19	8	2019	20	56	12	19	8	2019	8	32	26	2
20	8	2019	21	37	1	20	8	2019	9	14	16	2
21	8	2019	22	18	58	21	8	2019	9	56	53	2
22	8	2019	23	2	58	22	8	2019	10	41	3	2
23	8	2019	23	49	55	23	8	2019	11	27	38	2
24	8	2019	**	44	48	24	8	2019	12	17	24	2
25	8	2019	0	40	38	25	8	2019	13	10	36	2
26	8	2019	1	35	8	26	8	2019	14	7	20	2
27	8	2019	2	33	30	27	8	2019	15	6	47	2
28	8	2019	3	34	13	28	8	2019	16	7	19	2
29	8	2019	4	35	34	29	8	2019	17	7	15	2
30	8	2019	5	35	52	30	8	2019	18	5	8	2
31	8	2019	6	34	2	31	8	2019	19	0	47	2
32	8	2019	7	30	11	1	9	2019	19	54	19	2
2	9	2019	8	24	30	2	9	2019	20	46	19	2
3	9	2019	9	17	37	3	9	2019	21	37	33	2
4	9	2019	10	10	12	4	9	2019	22	28	42	2
5	9	2019	11	2	36	5	9	2019	23	19	54	2
6	9	2019	11	55	3	6	9	2019	**	44	48	2
7	9	2019	12	47	33	7	9	2019	0	11	44	2
8	9	2019	13	39	28	8	9	2019	1	3	40	2
9	9	2019	14	30	10	9	9	2019	1	55	8	2
10	9	2019	15	18	55	10	9	2019	2	45	24	2
11	9	2019	16	5	41	11	9	2019	3	33	50	2
12	9	2019	16	50	26	12	9	2019	4	20	36	2
13	9	2019	17	33	20	13	9	2019	5	5	32	2
14	9	2019	18	14	52	14	9	2019	5	48	57	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	55	40	15	9	2019	6	31	19	2
16	9	2019	19	36	13	16	9	2019	7	13	16	2
17	9	2019	20	17	38	17	9	2019	7	55	27	2
18	9	2019	21	0	40	18	9	2019	8	38	54	2
19	9	2019	21	46	1	19	9	2019	9	24	13	2

20	9	2019	22	34	24	20	9	2019	10	12	6	2
21	9	2019	23	26	11	21	9	2019	11	3	0	2
22	9	2019	**	44	48	22	9	2019	11	56	51	2
23	9	2019	0	21	5	23	9	2019	12	53	18	2
24	9	2019	1	18	58	24	9	2019	13	51	29	2
25	9	2019	2	18	14	25	9	2019	14	49	57	2
26	9	2019	3	17	32	26	9	2019	15	47	34	2
27	9	2019	4	15	47	27	9	2019	16	43	28	2
28	9	2019	5	12	25	28	9	2019	17	37	52	2
29	9	2019	6	7	55	29	9	2019	18	31	9	2
30	9	2019	7	2	31	30	9	2019	19	23	51	2
31	9	2019	7	56	47	1	10	2019	20	16	35	2
2	10	2019	8	51	6	2	10	2019	21	9	43	2
3	10	2019	9	45	28	3	10	2019	22	3	0	2
4	10	2019	10	39	37	4	10	2019	22	56	32	2
5	10	2019	11	33	13	5	10	2019	23	49	30	2
6	10	2019	12	25	23	6	10	2019	**	44	48	2
7	10	2019	13	15	31	7	10	2019	0	41	5	2
8	10	2019	14	3	17	8	10	2019	1	30	44	2
9	10	2019	14	48	33	9	10	2019	2	18	12	2
10	10	2019	15	31	49	10	10	2019	3	3	25	2
11	10	2019	16	13	40	11	10	2019	3	47	11	2
12	10	2019	16	54	38	12	10	2019	4	29	48	2
13	10	2019	17	35	26	13	10	2019	5	11	55	2
14	10	2019	18	16	39	14	10	2019	5	54	12	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	10	2019	18	59	22	15	10	2019	6	37	19	2
16	10	2019	19	44	13	16	10	2019	7	22	17	2
17	10	2019	20	31	45	17	10	2019	8	9	34	2
18	10	2019	21	22	18	18	10	2019	8	59	31	2
19	10	2019	22	15	48	19	10	2019	9	52	12	2
20	10	2019	23	11	22	20	10	2019	10	47	2	2
21	10	2019	**	44	48	21	10	2019	11	43	14	2
22	10	2019	0	8	34	22	10	2019	12	39	52	2
23	10	2019	1	5	55	23	10	2019	13	35	47	2
24	10	2019	2	2	30	24	10	2019	14	30	25	2
25	10	2019	2	57	54	25	10	2019	15	23	35	2
26	10	2019	3	52	7	26	10	2019	16	15	54	2
27	10	2019	4	46	2	27	10	2019	17	8	4	2
28	10	2019	5	40	3	28	10	2019	18	0	41	2
29	10	2019	6	34	41	29	10	2019	18	54	12	2
30	10	2019	7	30	7	30	10	2019	19	48	46	2
31	10	2019	8	25	57	31	10	2019	20	43	42	2
1	11	2019	9	21	28	1	11	2019	21	38	38	2
2	11	2019	10	15	57	2	11	2019	22	32	24	2
3	11	2019	11	8	18	3	11	2019	23	24	6	2
4	11	2019	11	57	56	4	11	2019	**	44	48	2
5	11	2019	12	44	45	5	11	2019	0	13	16	2
6	11	2019	13	28	54	6	11	2019	0	59	48	2
7	11	2019	14	11	7	7	11	2019	1	43	58	2

8	11	2019	14	52	14	8	11	2019	2	26	51	2
9	11	2019	15	32	55	9	11	2019	3	8	57	2
10	11	2019	16	14	4	10	11	2019	3	51	4	2
11	11	2019	16	56	19	11	11	2019	4	34	2	2
12	11	2019	17	40	45	12	11	2019	5	18	29	2
13	11	2019	18	28	0	13	11	2019	6	5	29	2
14	11	2019	19	18	21	14	11	2019	6	55	16	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	11	42	15	11	2019	7	47	56	2
16	11	2019	21	7	24	16	11	2019	8	42	57	2
17	11	2019	22	4	4	17	11	2019	9	39	12	2
18	11	2019	23	0	54	18	11	2019	10	35	28	2
19	11	2019	23	56	38	19	11	2019	11	30	52	2
20	11	2019	**	44	48	20	11	2019	12	24	33	2
21	11	2019	0	50	47	21	11	2019	13	16	31	2
22	11	2019	1	43	32	22	11	2019	14	7	14	2
23	11	2019	2	35	30	23	11	2019	14	57	21	2
24	11	2019	3	27	18	24	11	2019	15	47	55	2
25	11	2019	4	20	8	25	11	2019	16	39	45	2
26	11	2019	5	14	17	26	11	2019	17	33	12	2
27	11	2019	6	9	49	27	11	2019	18	28	11	2
28	11	2019	7	6	6	28	11	2019	19	23	46	2
29	11	2019	8	2	2	29	11	2019	20	19	12	2
30	11	2019	8	56	38	30	11	2019	21	13	6	2
1	12	2019	9	48	41	1	12	2019	22	4	31	2
2	12	2019	10	37	39	2	12	2019	22	53	2	2
3	12	2019	11	23	35	3	12	2019	23	38	49	2
4	12	2019	12	6	48	4	12	2019	**	44	48	2
5	12	2019	12	48	13	5	12	2019	0	22	10	2
6	12	2019	13	28	49	6	12	2019	1	4	23	2
7	12	2019	14	9	25	7	12	2019	1	46	9	2
8	12	2019	14	51	0	8	12	2019	2	28	24	2
9	12	2019	15	34	19	9	12	2019	3	12	3	2
10	12	2019	16	20	29	10	12	2019	3	57	49	2
11	12	2019	17	10	7	11	12	2019	4	46	49	2
12	12	2019	18	3	19	12	12	2019	5	39	8	2
13	12	2019	18	59	33	13	12	2019	6	34	31	2
14	12	2019	19	57	36	14	12	2019	7	31	57	2

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	55	38	15	12	2019	8	29	49	2
16	12	2019	21	52	38	16	12	2019	9	26	36	2
17	12	2019	22	47	35	17	12	2019	10	21	27	2
18	12	2019	23	40	25	18	12	2019	11	13	56	2
19	12	2019	**	44	48	19	12	2019	12	4	22	2
20	12	2019	0	31	38	20	12	2019	12	53	35	2
21	12	2019	1	22	8	21	12	2019	13	42	25	2



22	12	2019	2	12	42	22	12	2019	14	31	59	2
23	12	2019	3	4	35	23	12	2019	15	23	8	2
24	12	2019	3	58	1	24	12	2019	16	16	8	2
25	12	2019	4	52	58	25	12	2019	17	10	43	2
26	12	2019	5	48	39	26	12	2019	18	5	50	2
27	12	2019	6	43	45	27	12	2019	19	0	34	2
28	12	2019	7	37	22	28	12	2019	19	53	35	2
29	12	2019	8	28	17	29	12	2019	20	43	58	2
30	12	2019	9	16	5	30	12	2019	21	31	29	2
31	12	2019	10	0	57	31	12	2019	22	16	22	2
1	1	2020	10	43	19	1	1	2020	22	59	2	2
2	1	2020	11	24	5	2	1	2020	23	40	46	2
27	12	2018	22	36	29	27	12	2018	10	10	48	3
28	12	2018	23	29	5	28	12	2018	11	2	51	3
29	12	2018	**	44	48	29	12	2018	11	52	7	3
30	12	2018	0	19	22	30	12	2018	12	39	32	3
31	12	2018	1	8	14	31	12	2018	13	25	57	3
32	12	2018	1	56	25	1	1	2019	14	12	24	3
2	1	2019	2	45	3	2	1	2019	14	59	37	3
3	1	2019	3	34	19	3	1	2019	15	47	50	3
4	1	2019	4	24	14	4	1	2019	16	37	0	3
5	1	2019	5	14	29	5	1	2019	17	26	45	3
6	1	2019	6	4	23	6	1	2019	18	16	15	3
7	1	2019	6	53	11	7	1	2019	19	5	8	3
8	1	2019	7	40	38	8	1	2019	19	52	49	3
9	1	2019	8	26	17	9	1	2019	20	38	58	3
10	1	2019	9	10	8	10	1	2019	21	23	42	3
11	1	2019	9	52	28	11	1	2019	22	7	11	3
12	1	2019	10	33	57	12	1	2019	22	50	26	3
13	1	2019	11	15	30	13	1	2019	23	34	8	3
14	1	2019	11	57	57	14	1	2019	**	44	48	3

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	42	17	15	1	2019	0	19	12	3
16	1	2019	13	29	32	16	1	2019	1	6	39	3
17	1	2019	14	20	28	17	1	2019	1	57	23	3
18	1	2019	15	15	50	18	1	2019	2	51	53	3
19	1	2019	16	15	31	19	1	2019	3	50	37	3
20	1	2019	17	18	12	20	1	2019	4	52	26	3
21	1	2019	18	21	48	21	1	2019	5	55	30	3
22	1	2019	19	24	7	22	1	2019	6	57	35	3
23	1	2019	20	23	26	23	1	2019	7	56	51	3
24	1	2019	21	19	38	24	1	2019	8	52	31	3
25	1	2019	22	12	52	25	1	2019	9	45	0	3
26	1	2019	23	3	53	26	1	2019	10	34	52	3
27	1	2019	23	53	34	27	1	2019	11	23	1	3
28	1	2019	**	44	48	28	1	2019	12	10	17	3
29	1	2019	0	42	29	29	1	2019	12	57	33	3
30	1	2019	1	31	42	30	1	2019	13	45	26	3
31	1	2019	2	21	15	31	1	2019	14	34	3	3
32	1	2019	3	11	4	1	2	2019	15	23	15	3

2	2	2019	4	0	45	2	2	2019	16	12	37	3
3	2	2019	4	49	43	3	2	2019	17	1	22	3
4	2	2019	5	37	18	4	2	2019	17	49	16	3
5	2	2019	6	23	29	5	2	2019	18	35	56	3
6	2	2019	7	7	57	6	2	2019	19	21	11	3
7	2	2019	7	50	52	7	2	2019	20	5	15	3
8	2	2019	8	32	40	8	2	2019	20	48	33	3
9	2	2019	9	13	53	9	2	2019	21	31	32	3
10	2	2019	9	55	17	10	2	2019	22	15	20	3
11	2	2019	10	37	58	11	2	2019	23	0	41	3
12	2	2019	11	22	43	12	2	2019	23	48	25	3
13	2	2019	12	10	28	13	2	2019	**	44	48	3
14	2	2019	13	1	51	14	2	2019	0	39	30	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	57	22	15	2	2019	1	34	2	3
16	2	2019	14	56	46	16	2	2019	2	32	24	3
17	2	2019	15	58	42	17	2	2019	3	33	21	3
18	2	2019	17	1	20	18	2	2019	4	35	10	3
19	2	2019	18	2	47	19	2	2019	5	35	58	3
20	2	2019	19	1	40	20	2	2019	6	34	21	3
21	2	2019	19	58	2	21	2	2019	7	29	42	3
22	2	2019	20	52	4	22	2	2019	8	22	33	3
23	2	2019	21	44	22	23	2	2019	9	13	21	3
24	2	2019	22	35	36	24	2	2019	10	2	54	3
25	2	2019	23	26	6	25	2	2019	10	51	50	3
26	2	2019	**	44	48	26	2	2019	11	40	44	3
27	2	2019	0	16	42	27	2	2019	12	30	3	3
28	2	2019	1	7	11	28	2	2019	13	19	37	3
29	2	2019	1	57	17	1	3	2019	14	9	9	3
2	3	2019	2	46	37	2	3	2019	14	58	14	3
3	3	2019	3	34	41	3	3	2019	15	46	15	3
4	3	2019	4	21	1	4	3	2019	16	33	8	3
5	3	2019	5	5	57	5	3	2019	17	18	50	3
6	3	2019	5	49	22	6	3	2019	18	3	22	3
7	3	2019	6	31	36	7	3	2019	18	47	4	3
8	3	2019	7	13	11	8	3	2019	19	30	28	3
9	3	2019	7	54	40	9	3	2019	20	14	0	3
10	3	2019	8	36	47	10	3	2019	20	58	44	3
11	3	2019	9	20	35	11	3	2019	21	45	20	3
12	3	2019	10	6	42	12	3	2019	22	34	25	3
13	3	2019	10	55	51	13	3	2019	23	26	30	3
14	3	2019	11	48	18	14	3	2019	**	44	48	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	44	9	15	3	2019	0	21	28	3
16	3	2019	13	42	52	16	3	2019	1	19	19	3
17	3	2019	14	43	5	17	3	2019	2	18	38	3

18	3	2019	15	43	20	18	3	2019	3	17	58	3
19	3	2019	16	42	25	19	3	2019	4	16	2	3
20	3	2019	17	39	31	20	3	2019	5	12	3	3
21	3	2019	18	34	56	21	3	2019	6	5	52	3
22	3	2019	19	28	57	22	3	2019	6	58	12	3
23	3	2019	20	22	6	23	3	2019	7	49	23	3
24	3	2019	21	14	46	24	3	2019	8	40	6	3
25	3	2019	22	7	14	25	3	2019	9	30	48	3
26	3	2019	22	59	11	26	3	2019	10	21	34	3
27	3	2019	23	50	49	27	3	2019	11	12	23	3
28	3	2019	**	44	48	28	3	2019	12	3	7	3
29	3	2019	0	41	26	29	3	2019	12	53	10	3
30	3	2019	1	30	31	30	3	2019	13	42	6	3
31	3	2019	2	17	50	31	3	2019	14	29	30	3
32	3	2019	3	3	6	1	4	2019	15	15	31	3
2	4	2019	3	46	57	2	4	2019	16	0	24	3
3	4	2019	4	29	30	3	4	2019	16	44	23	3
4	4	2019	5	11	19	4	4	2019	17	28	1	3
5	4	2019	5	53	2	5	4	2019	18	11	55	3
6	4	2019	6	35	17	6	4	2019	18	56	34	3
7	4	2019	7	18	48	7	4	2019	19	43	0	3
8	4	2019	8	4	33	8	4	2019	20	31	44	3
9	4	2019	8	53	1	9	4	2019	21	23	7	3
10	4	2019	9	44	32	10	4	2019	22	17	13	3
11	4	2019	10	38	55	11	4	2019	23	13	17	3
12	4	2019	11	35	39	12	4	2019	**	44	48	3
13	4	2019	12	33	54	13	4	2019	0	10	55	3
14	4	2019	13	32	16	14	4	2019	1	8	36	3

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	29	44	15	4	2019	2	5	10	3
16	4	2019	15	25	48	16	4	2019	3	0	1	3
17	4	2019	16	20	18	17	4	2019	3	53	1	3
18	4	2019	17	13	50	18	4	2019	4	44	29	3
19	4	2019	18	6	57	19	4	2019	5	35	20	3
20	4	2019	19	0	1	20	4	2019	6	26	7	3
21	4	2019	19	53	22	21	4	2019	7	17	13	3
22	4	2019	20	46	55	22	4	2019	8	8	56	3
23	4	2019	21	39	58	23	4	2019	9	1	1	3
24	4	2019	22	32	24	24	4	2019	9	53	4	3
25	4	2019	23	23	20	25	4	2019	10	44	42	3
26	4	2019	**	44	48	26	4	2019	11	35	5	3
27	4	2019	0	12	11	27	4	2019	12	23	50	3
28	4	2019	0	58	46	28	4	2019	13	10	39	3
29	4	2019	1	43	4	29	4	2019	13	55	54	3
30	4	2019	2	25	58	30	4	2019	14	40	5	3
31	4	2019	3	7	51	1	5	2019	15	23	41	3
2	5	2019	3	49	26	2	5	2019	16	7	24	3
3	5	2019	4	31	29	3	5	2019	16	52	1	3
4	5	2019	5	14	47	4	5	2019	17	38	5	3
5	5	2019	6	0	3	5	5	2019	18	26	36	3

6	5	2019	6	48	16	6	5	2019	19	17	59	3
7	5	2019	7	39	41	7	5	2019	20	12	13	3
8	5	2019	8	34	12	8	5	2019	21	8	51	3
9	5	2019	9	31	11	9	5	2019	22	6	46	3
10	5	2019	10	29	18	10	5	2019	23	4	20	3
11	5	2019	11	27	17	11	5	2019	**	44	48	3
12	5	2019	12	24	13	12	5	2019	0	0	47	3
13	5	2019	13	19	23	13	5	2019	0	55	4	3
14	5	2019	14	12	51	14	5	2019	1	47	10	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	5	2019	15	4	55	15	5	2019	2	37	32	3
16	5	2019	15	56	29	16	5	2019	3	26	45	3
17	5	2019	16	48	18	17	5	2019	4	16	1	3
18	5	2019	17	40	45	18	5	2019	5	5	52	3
19	5	2019	18	33	58	19	5	2019	5	56	45	3
20	5	2019	19	27	40	20	5	2019	6	48	45	3
21	5	2019	20	20	59	21	5	2019	7	41	21	3
22	5	2019	21	13	25	22	5	2019	8	33	51	3
23	5	2019	22	4	1	23	5	2019	9	25	40	3
24	5	2019	22	52	16	24	5	2019	10	15	54	3
25	5	2019	23	38	3	25	5	2019	11	4	8	3
26	5	2019	**	44	48	26	5	2019	11	50	15	3
27	5	2019	0	21	23	27	5	2019	12	34	44	3
28	5	2019	1	3	26	28	5	2019	13	18	17	3
29	5	2019	1	44	43	29	5	2019	14	1	32	3
30	5	2019	2	26	7	30	5	2019	14	45	22	3
31	5	2019	3	8	31	31	5	2019	15	30	38	3
32	5	2019	3	52	50	1	6	2019	16	18	3	3
2	6	2019	4	39	50	2	6	2019	17	8	33	3
3	6	2019	5	30	31	3	6	2019	18	2	30	3
4	6	2019	6	24	53	4	6	2019	18	59	32	3
5	6	2019	7	22	26	5	6	2019	19	58	37	3
6	6	2019	8	21	55	6	6	2019	20	58	7	3
7	6	2019	9	21	32	7	6	2019	21	56	7	3
8	6	2019	10	19	46	8	6	2019	22	51	53	3
9	6	2019	11	15	56	9	6	2019	23	44	51	3
10	6	2019	12	9	43	10	6	2019	**	44	48	3
11	6	2019	13	1	35	11	6	2019	0	35	16	3
12	6	2019	13	52	10	12	6	2019	1	24	1	3
13	6	2019	14	42	30	13	6	2019	2	11	53	3
14	6	2019	15	33	22	14	6	2019	3	0	10	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	6	2019	16	25	7	15	6	2019	3	49	23	3
16	6	2019	17	17	50	16	6	2019	4	39	55	3
17	6	2019	18	11	2	17	6	2019	5	31	42	3
18	6	2019	19	3	43	18	6	2019	6	24	8	3

19	6	2019	19	55	18	19	6	2019	7	16	14	3
20	6	2019	20	44	52	20	6	2019	8	7	28	3
21	6	2019	21	31	59	21	6	2019	8	56	53	3
22	6	2019	22	16	39	22	6	2019	9	44	12	3
23	6	2019	22	59	17	23	6	2019	10	29	32	3
24	6	2019	23	40	20	24	6	2019	11	13	12	3
25	6	2019	**	44	48	25	6	2019	11	56	1	3
26	6	2019	0	21	4	26	6	2019	12	38	57	3
27	6	2019	1	2	17	27	6	2019	13	22	49	3
28	6	2019	1	44	59	28	6	2019	14	8	36	3
29	6	2019	2	30	8	29	6	2019	14	57	2	3
30	6	2019	3	18	30	30	6	2019	15	49	3	3
31	6	2019	4	11	8	1	7	2019	16	44	56	3
2	7	2019	5	7	51	2	7	2019	17	44	0	3
3	7	2019	6	7	46	3	7	2019	18	44	49	3
4	7	2019	7	9	11	4	7	2019	19	45	27	3
5	7	2019	8	10	1	5	7	2019	20	43	51	3
6	7	2019	9	8	42	6	7	2019	21	39	27	3
7	7	2019	10	4	49	7	7	2019	22	32	1	3
8	7	2019	10	58	17	8	7	2019	23	22	3	3
9	7	2019	11	49	48	9	7	2019	**	44	48	3
10	7	2019	12	40	14	10	7	2019	0	10	28	3
11	7	2019	13	30	21	11	7	2019	0	58	23	3
12	7	2019	14	20	58	12	7	2019	1	46	26	3
13	7	2019	15	12	29	13	7	2019	2	35	43	3
14	7	2019	16	4	42	14	7	2019	3	26	14	3

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	7	2019	16	57	4	15	7	2019	4	17	45	3
16	7	2019	17	48	32	16	7	2019	5	9	34	3
17	7	2019	18	38	37	17	7	2019	6	0	42	3
18	7	2019	19	26	37	18	7	2019	6	50	42	3
19	7	2019	20	12	14	19	7	2019	7	38	49	3
20	7	2019	20	55	38	20	7	2019	8	24	55	3
21	7	2019	21	37	17	21	7	2019	9	9	13	3
22	7	2019	22	17	42	22	7	2019	9	52	8	3
23	7	2019	22	58	7	23	7	2019	10	34	27	3
24	7	2019	23	39	19	24	7	2019	11	17	13	3
25	7	2019	**	44	48	25	7	2019	12	1	13	3
26	7	2019	0	22	17	26	7	2019	12	47	26	3
27	7	2019	1	8	9	27	7	2019	13	36	36	3
28	7	2019	1	57	31	28	7	2019	14	29	32	3
29	7	2019	2	51	24	29	7	2019	15	26	22	3
30	7	2019	3	49	25	30	7	2019	16	26	15	3
31	7	2019	4	50	28	31	7	2019	17	27	35	3
32	7	2019	5	52	42	1	8	2019	18	28	24	3
2	8	2019	6	54	2	2	8	2019	19	26	49	3
3	8	2019	7	53	1	3	8	2019	20	22	26	3
4	8	2019	8	49	27	4	8	2019	21	15	13	3
5	8	2019	9	43	25	5	8	2019	22	5	48	3
6	8	2019	10	35	38	6	8	2019	22	55	7	3

7	8	2019	11	26	58	7	8	2019	23	44	4	3
8	8	2019	12	17	59	8	8	2019	**	44	48	3
9	8	2019	13	9	19	9	8	2019	0	33	6	3
10	8	2019	14	1	10	10	8	2019	1	23	15	3
11	8	2019	14	53	8	11	8	2019	2	14	13	3
12	8	2019	15	44	35	12	8	2019	3	5	36	3
13	8	2019	16	34	37	13	8	2019	3	56	41	3
14	8	2019	17	22	55	14	8	2019	4	46	33	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	9	7	15	8	2019	5	35	3	3
16	8	2019	18	53	10	16	8	2019	6	21	39	3
17	8	2019	19	35	20	17	8	2019	7	6	28	3
18	8	2019	20	16	12	18	8	2019	7	49	49	3
19	8	2019	20	56	16	19	8	2019	8	32	13	3
20	8	2019	21	36	44	20	8	2019	9	14	22	3
21	8	2019	22	18	21	21	8	2019	9	57	20	3
22	8	2019	23	2	2	22	8	2019	10	41	50	3
23	8	2019	23	48	41	23	8	2019	11	28	44	3
24	8	2019	**	44	48	24	8	2019	12	18	46	3
25	8	2019	0	39	8	25	8	2019	13	12	11	3
26	8	2019	1	33	28	26	8	2019	14	9	2	3
27	8	2019	2	31	46	27	8	2019	15	8	29	3
28	8	2019	3	32	34	28	8	2019	16	8	53	3
29	8	2019	4	34	8	29	8	2019	17	8	33	3
30	8	2019	5	34	45	30	8	2019	18	6	5	3
31	8	2019	6	33	18	31	8	2019	19	1	19	3
32	8	2019	7	29	52	1	9	2019	19	54	26	3
2	9	2019	8	24	37	2	9	2019	20	46	0	3
3	9	2019	9	18	8	3	9	2019	21	36	50	3
4	9	2019	10	11	6	4	9	2019	22	27	37	3
5	9	2019	11	3	50	5	9	2019	23	18	31	3
6	9	2019	11	56	33	6	9	2019	**	44	48	3
7	9	2019	12	49	13	7	9	2019	0	10	8	3
8	9	2019	13	41	11	8	9	2019	1	1	58	3
9	9	2019	14	31	51	9	9	2019	1	53	25	3
10	9	2019	15	20	29	10	9	2019	2	43	47	3
11	9	2019	16	7	2	11	9	2019	3	32	22	3
12	9	2019	16	51	32	12	9	2019	4	19	23	3
13	9	2019	17	34	9	13	9	2019	5	4	35	3
14	9	2019	18	15	22	14	9	2019	5	48	18	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	55	50	15	9	2019	6	31	0	3
16	9	2019	19	36	2	16	9	2019	7	13	17	3
17	9	2019	20	17	8	17	9	2019	7	55	48	3
18	9	2019	20	59	49	18	9	2019	8	39	35	3
19	9	2019	21	44	52	19	9	2019	9	25	14	3

20	9	2019	22	32	59	20	9	2019	10	13	24	3
21	9	2019	23	24	34	21	9	2019	11	4	32	3
22	9	2019	**	44	48	22	9	2019	11	58	32	3
23	9	2019	0	19	21	23	9	2019	12	55	2	3
24	9	2019	1	17	15	24	9	2019	13	53	8	3
25	9	2019	2	16	40	25	9	2019	14	51	25	3
26	9	2019	3	16	14	26	9	2019	15	48	42	3
27	9	2019	4	14	50	27	9	2019	16	44	13	3
28	9	2019	5	11	53	28	9	2019	17	38	12	3
29	9	2019	6	7	48	29	9	2019	18	31	2	3
30	9	2019	7	2	51	30	9	2019	19	23	19	3
31	9	2019	7	57	31	1	10	2019	20	15	39	3
2	10	2019	8	52	13	2	10	2019	21	8	27	3
3	10	2019	9	46	53	3	10	2019	22	1	28	3
4	10	2019	10	41	15	4	10	2019	22	54	51	3
5	10	2019	11	34	57	5	10	2019	23	47	45	3
6	10	2019	12	27	7	6	10	2019	**	44	48	3
7	10	2019	13	17	9	7	10	2019	0	39	23	3
8	10	2019	14	4	44	8	10	2019	1	29	11	3
9	10	2019	14	49	45	9	10	2019	2	16	53	3
10	10	2019	15	32	44	10	10	2019	3	2	22	3
11	10	2019	16	14	16	11	10	2019	3	46	26	3
12	10	2019	16	54	54	12	10	2019	4	29	22	3
13	10	2019	17	35	21	13	10	2019	5	11	50	3
14	10	2019	18	16	14	14	10	2019	5	54	28	3

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	10	2019	18	58	37	15	10	2019	6	37	54	3
16	10	2019	19	43	8	16	10	2019	7	23	12	3
17	10	2019	20	30	23	17	10	2019	8	10	47	3
18	10	2019	21	20	43	18	10	2019	9	1	0	3
19	10	2019	22	14	4	19	10	2019	9	53	52	3
20	10	2019	23	9	37	20	10	2019	10	48	48	3
21	10	2019	**	44	48	21	10	2019	11	44	58	3
22	10	2019	0	6	55	22	10	2019	12	41	26	3
23	10	2019	1	4	29	23	10	2019	13	37	5	3
24	10	2019	2	1	22	24	10	2019	14	31	22	3
25	10	2019	2	57	9	25	10	2019	15	24	8	3
26	10	2019	3	51	47	26	10	2019	16	16	2	3
27	10	2019	4	46	8	27	10	2019	17	7	45	3
28	10	2019	5	40	35	28	10	2019	17	59	56	3
29	10	2019	6	35	37	29	10	2019	18	53	5	3
30	10	2019	7	31	24	30	10	2019	19	47	20	3
31	10	2019	8	27	31	31	10	2019	20	42	3	3
1	11	2019	9	23	12	1	11	2019	21	36	52	3
2	11	2019	10	17	43	2	11	2019	22	30	39	3
3	11	2019	11	10	0	3	11	2019	23	22	28	3
4	11	2019	11	59	29	4	11	2019	**	44	48	3
5	11	2019	12	46	4	5	11	2019	0	11	49	3
6	11	2019	13	29	56	6	11	2019	0	58	37	3
7	11	2019	14	11	51	7	11	2019	1	43	5	3

8	11	2019	14	52	38	8	11	2019	2	26	17	3
9	11	2019	15	32	59	9	11	2019	3	8	43	3
10	11	2019	16	13	46	10	11	2019	3	51	11	3
11	11	2019	16	55	41	11	11	2019	4	34	30	3
12	11	2019	17	39	47	12	11	2019	5	19	18	3
13	11	2019	18	26	43	13	11	2019	6	6	38	3
14	11	2019	19	16	49	14	11	2019	6	56	42	3

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	9	59	15	11	2019	7	49	34	3
16	11	2019	21	5	38	16	11	2019	8	44	42	3
17	11	2019	22	2	21	17	11	2019	9	40	58	3
18	11	2019	22	59	21	18	11	2019	10	37	7	3
19	11	2019	23	55	22	19	11	2019	11	32	17	3
20	11	2019	**	44	48	20	11	2019	12	25	39	3
21	11	2019	0	49	52	21	11	2019	13	17	14	3
22	11	2019	1	43	1	22	11	2019	14	7	33	3
23	11	2019	2	35	24	23	11	2019	14	57	14	3
24	11	2019	3	27	38	24	11	2019	15	47	23	3
25	11	2019	4	20	52	25	11	2019	16	38	49	3
26	11	2019	5	15	25	26	11	2019	17	31	55	3
27	11	2019	6	11	16	27	11	2019	18	26	38	3
28	11	2019	7	7	46	28	11	2019	19	22	2	3
29	11	2019	8	3	48	29	11	2019	20	17	25	3
30	11	2019	8	58	24	30	11	2019	21	11	23	3
1	12	2019	9	50	19	1	12	2019	22	2	57	3
2	12	2019	10	39	5	2	12	2019	22	51	43	3
3	12	2019	11	24	45	3	12	2019	23	37	47	3
4	12	2019	12	7	40	4	12	2019	**	44	48	3
5	12	2019	12	48	45	5	12	2019	0	21	27	3
6	12	2019	13	29	1	6	12	2019	1	4	0	3
7	12	2019	14	9	17	7	12	2019	1	46	7	3
8	12	2019	14	50	30	8	12	2019	2	28	43	3
9	12	2019	15	33	29	9	12	2019	3	12	43	3
10	12	2019	16	19	19	10	12	2019	3	58	50	3
11	12	2019	17	8	40	11	12	2019	4	48	8	3
12	12	2019	18	1	39	12	12	2019	5	40	43	3
13	12	2019	18	57	46	13	12	2019	6	36	15	3
14	12	2019	19	55	50	14	12	2019	7	33	44	3

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	54	0	15	12	2019	8	31	32	3
16	12	2019	21	51	15	16	12	2019	9	28	6	3
17	12	2019	22	46	33	17	12	2019	10	22	40	3
18	12	2019	23	39	45	18	12	2019	11	14	46	3
19	12	2019	**	44	48	19	12	2019	12	4	49	3
20	12	2019	0	31	24	20	12	2019	12	53	37	3
21	12	2019	1	22	19	21	12	2019	13	42	2	3



22	12	2019	2	13	17	22	12	2019	14	31	12	3
23	12	2019	3	5	33	23	12	2019	15	22	0	3
24	12	2019	3	59	20	24	12	2019	16	14	41	3
25	12	2019	4	54	33	25	12	2019	17	9	3	3
26	12	2019	5	50	23	26	12	2019	18	4	3	3
27	12	2019	6	45	33	27	12	2019	18	58	48	3
28	12	2019	7	39	5	28	12	2019	19	51	57	3
29	12	2019	8	29	49	29	12	2019	20	42	32	3
30	12	2019	9	17	23	30	12	2019	21	30	19	3
31	12	2019	10	1	57	31	12	2019	22	15	30	3
1	1	2020	10	44	0	1	1	2020	22	58	30	3
2	1	2020	11	24	26	2	1	2020	23	40	34	3
27	12	2018	22	35	43	27	12	2018	10	11	44	4
28	12	2018	23	28	41	28	12	2018	11	3	26	4
29	12	2018	**	44	48	29	12	2018	11	52	19	4
30	12	2018	0	19	22	30	12	2018	12	39	21	4
31	12	2018	1	8	36	31	12	2018	13	25	25	4
32	12	2018	1	57	8	1	1	2019	14	11	33	4
2	1	2019	2	46	5	2	1	2019	14	58	28	4
3	1	2019	3	35	36	3	1	2019	15	46	26	4
4	1	2019	4	25	43	4	1	2019	16	35	27	4
5	1	2019	5	16	6	5	1	2019	17	25	7	4
6	1	2019	6	6	1	6	1	2019	18	14	37	4
7	1	2019	6	54	46	7	1	2019	19	3	37	4
8	1	2019	7	42	5	8	1	2019	19	51	28	4
9	1	2019	8	27	31	9	1	2019	20	37	51	4
10	1	2019	9	11	8	10	1	2019	21	22	51	4
11	1	2019	9	53	11	11	1	2019	22	6	38	4
12	1	2019	10	34	20	12	1	2019	22	50	12	4
13	1	2019	11	15	34	13	1	2019	23	34	14	4
14	1	2019	11	57	41	14	1	2019	**	44	48	4

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	41	40	15	1	2019	0	19	39	4
16	1	2019	13	28	35	16	1	2019	1	7	26	4
17	1	2019	14	19	13	17	1	2019	1	58	29	4
18	1	2019	15	14	22	18	1	2019	2	53	15	4
19	1	2019	16	13	54	19	1	2019	3	52	11	4
20	1	2019	17	16	34	20	1	2019	4	54	5	4
21	1	2019	18	20	18	21	1	2019	5	57	5	4
22	1	2019	19	22	50	22	1	2019	6	58	59	4
23	1	2019	20	22	30	23	1	2019	7	57	57	4
24	1	2019	21	19	5	24	1	2019	8	53	16	4
25	1	2019	22	12	43	25	1	2019	9	45	21	4
26	1	2019	23	4	7	26	1	2019	10	34	49	4
27	1	2019	23	54	9	27	1	2019	11	22	36	4
28	1	2019	**	44	48	28	1	2019	12	9	31	4
29	1	2019	0	43	25	29	1	2019	12	56	28	4
30	1	2019	1	32	55	30	1	2019	13	44	7	4
31	1	2019	2	22	41	31	1	2019	14	32	33	4
32	1	2019	3	12	38	1	2	2019	15	21	38	4

2	2	2019	4	2	24	2	2	2019	16	10	58	4
3	2	2019	4	51	20	3	2	2019	16	59	47	4
4	2	2019	5	38	48	4	2	2019	17	47	51	4
5	2	2019	6	24	48	5	2	2019	18	34	44	4
6	2	2019	7	9	2	6	2	2019	19	20	14	4
7	2	2019	7	51	40	7	2	2019	20	4	36	4
8	2	2019	8	33	10	8	2	2019	20	48	13	4
9	2	2019	9	14	3	9	2	2019	21	31	31	4
10	2	2019	9	55	7	10	2	2019	22	15	39	4
11	2	2019	10	37	29	11	2	2019	23	1	20	4
12	2	2019	11	21	54	12	2	2019	23	49	24	4
13	2	2019	12	9	21	13	2	2019	**	44	48	4
14	2	2019	13	0	28	14	2	2019	0	40	46	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	55	48	15	2	2019	1	35	32	4
16	2	2019	14	55	7	16	2	2019	2	34	2	4
17	2	2019	15	57	6	17	2	2019	3	35	0	4
18	2	2019	16	59	55	18	2	2019	4	36	41	4
19	2	2019	18	1	41	19	2	2019	5	37	14	4
20	2	2019	19	0	54	20	2	2019	6	35	18	4
21	2	2019	19	57	41	21	2	2019	7	30	16	4
22	2	2019	20	52	7	22	2	2019	8	22	41	4
23	2	2019	21	44	48	23	2	2019	9	13	5	4
24	2	2019	22	36	24	24	2	2019	10	2	16	4
25	2	2019	23	27	13	25	2	2019	10	50	51	4
26	2	2019	**	44	48	26	2	2019	11	39	28	4
27	2	2019	0	18	5	27	2	2019	12	28	34	4
28	2	2019	1	8	44	28	2	2019	13	18	0	4
29	2	2019	1	58	55	1	3	2019	14	7	30	4
2	3	2019	2	48	15	2	3	2019	14	56	38	4
3	3	2019	3	36	14	3	3	2019	15	44	46	4
4	3	2019	4	22	24	4	3	2019	16	31	51	4
5	3	2019	5	7	7	5	3	2019	17	17	48	4
6	3	2019	5	50	15	6	3	2019	18	2	37	4
7	3	2019	6	32	12	7	3	2019	18	46	38	4
8	3	2019	7	13	27	8	3	2019	19	30	21	4
9	3	2019	7	54	36	9	3	2019	20	14	13	4
10	3	2019	8	36	23	10	3	2019	20	59	18	4
11	3	2019	9	19	51	11	3	2019	21	46	13	4
12	3	2019	10	5	40	12	3	2019	22	35	36	4
13	3	2019	10	54	32	13	3	2019	23	27	56	4
14	3	2019	11	46	46	14	3	2019	**	44	48	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	42	30	15	3	2019	0	23	4	4
16	3	2019	13	41	13	16	3	2019	1	20	59	4
17	3	2019	14	41	33	17	3	2019	2	20	14	4

18	3	2019	15	42	2	18	3	2019	3	19	23	4
19	3	2019	16	41	27	19	3	2019	4	17	9	4
20	3	2019	17	38	58	20	3	2019	5	12	49	4
21	3	2019	18	34	47	21	3	2019	6	6	13	4
22	3	2019	19	29	12	22	3	2019	6	58	9	4
23	3	2019	20	22	44	23	3	2019	7	48	56	4
24	3	2019	21	15	46	24	3	2019	8	39	17	4
25	3	2019	22	8	31	25	3	2019	9	29	39	4
26	3	2019	23	0	41	26	3	2019	10	20	9	4
27	3	2019	23	52	27	27	3	2019	11	10	48	4
28	3	2019	**	44	48	28	3	2019	12	1	27	4
29	3	2019	0	43	6	29	3	2019	12	51	31	4
30	3	2019	1	32	8	30	3	2019	13	40	33	4
31	3	2019	2	19	18	31	3	2019	14	28	8	4
32	3	2019	3	4	21	1	4	2019	15	14	23	4
2	4	2019	3	47	57	2	4	2019	15	59	32	4
3	4	2019	4	30	12	3	4	2019	16	43	50	4
4	4	2019	5	11	42	4	4	2019	17	27	48	4
5	4	2019	5	53	5	5	4	2019	18	12	2	4
6	4	2019	6	35	0	6	4	2019	18	57	2	4
7	4	2019	7	18	10	7	4	2019	19	43	48	4
8	4	2019	8	3	36	8	4	2019	20	32	51	4
9	4	2019	8	51	46	9	4	2019	21	24	30	4
10	4	2019	9	43	2	10	4	2019	22	18	47	4
11	4	2019	10	37	16	11	4	2019	23	14	58	4
12	4	2019	11	33	58	12	4	2019	**	44	48	4
13	4	2019	12	32	17	13	4	2019	0	12	35	4
14	4	2019	13	30	51	14	4	2019	1	10	7	4

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	28	37	15	4	2019	2	6	26	4
16	4	2019	15	25	3	16	4	2019	3	0	57	4
17	4	2019	16	19	56	17	4	2019	3	53	34	4
18	4	2019	17	13	54	18	4	2019	4	44	37	4
19	4	2019	18	7	25	19	4	2019	5	35	4	4
20	4	2019	19	0	51	20	4	2019	6	25	28	4
21	4	2019	19	54	32	21	4	2019	7	16	12	4
22	4	2019	20	48	21	22	4	2019	8	7	37	4
23	4	2019	21	41	35	23	4	2019	8	59	29	4
24	4	2019	22	34	6	24	4	2019	9	51	24	4
25	4	2019	23	25	0	25	4	2019	10	43	0	4
26	4	2019	**	44	48	26	4	2019	11	33	28	4
27	4	2019	0	13	44	27	4	2019	12	22	22	4
28	4	2019	1	0	8	28	4	2019	13	9	24	4
29	4	2019	1	44	11	29	4	2019	13	54	55	4
30	4	2019	2	26	48	30	4	2019	14	39	24	4
31	4	2019	3	8	22	1	5	2019	15	23	20	4
2	5	2019	3	49	37	2	5	2019	16	7	23	4
3	5	2019	4	31	19	3	5	2019	16	52	21	4
4	5	2019	5	14	17	4	5	2019	17	38	46	4
5	5	2019	5	59	12	5	5	2019	18	27	36	4

6	5	2019	6	47	6	6	5	2019	19	19	17	4
7	5	2019	7	38	15	7	5	2019	20	13	45	4
8	5	2019	8	32	35	8	5	2019	21	10	31	4
9	5	2019	9	29	29	9	5	2019	22	8	28	4
10	5	2019	10	27	39	10	5	2019	23	5	56	4
11	5	2019	11	25	48	11	5	2019	**	44	48	4
12	5	2019	12	22	59	12	5	2019	0	2	9	4
13	5	2019	13	18	30	13	5	2019	0	56	8	4
14	5	2019	14	12	20	14	5	2019	1	47	53	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	5	2019	15	4	47	15	5	2019	2	37	51	4
16	5	2019	15	56	47	16	5	2019	3	26	39	4
17	5	2019	16	48	58	17	5	2019	4	15	32	4
18	5	2019	17	41	47	18	5	2019	5	5	0	4
19	5	2019	18	35	18	19	5	2019	5	55	33	4
20	5	2019	19	29	13	20	5	2019	6	47	18	4
21	5	2019	20	22	39	21	5	2019	7	39	43	4
22	5	2019	21	15	7	22	5	2019	8	32	9	4
23	5	2019	22	5	39	23	5	2019	9	24	0	4
24	5	2019	22	53	44	24	5	2019	10	14	20	4
25	5	2019	23	39	17	25	5	2019	11	2	46	4
26	5	2019	**	44	48	26	5	2019	11	49	9	4
27	5	2019	0	22	21	27	5	2019	12	33	54	4
28	5	2019	1	4	6	28	5	2019	13	17	46	4
29	5	2019	1	45	3	29	5	2019	14	1	22	4
30	5	2019	2	26	6	30	5	2019	14	45	32	4
31	5	2019	3	8	10	31	5	2019	15	31	9	4
32	5	2019	3	52	8	1	6	2019	16	18	55	4
2	6	2019	4	38	48	2	6	2019	17	9	45	4
3	6	2019	5	29	10	3	6	2019	18	3	58	4
4	6	2019	6	23	19	4	6	2019	19	1	11	4
5	6	2019	7	20	44	5	6	2019	20	0	20	4
6	6	2019	8	20	13	6	6	2019	20	59	47	4
7	6	2019	9	19	57	7	6	2019	21	57	35	4
8	6	2019	10	18	25	8	6	2019	22	53	5	4
9	6	2019	11	14	55	9	6	2019	23	45	42	4
10	6	2019	12	9	4	10	6	2019	**	44	48	4
11	6	2019	13	1	19	11	6	2019	0	35	42	4
12	6	2019	13	52	19	12	6	2019	1	24	4	4
13	6	2019	14	43	2	13	6	2019	2	11	32	4
14	6	2019	15	34	15	14	6	2019	2	59	26	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	6	2019	16	26	20	15	6	2019	3	48	19	4
16	6	2019	17	19	18	16	6	2019	4	38	33	4
17	6	2019	18	12	41	17	6	2019	5	30	8	4
18	6	2019	19	5	26	18	6	2019	6	22	26	4

19	6	2019	19	56	59	19	6	2019	7	14	32	4
20	6	2019	20	46	26	20	6	2019	8	5	50	4
21	6	2019	21	33	20	21	6	2019	8	55	26	4
22	6	2019	22	17	45	22	6	2019	9	42	59	4
23	6	2019	23	0	6	23	6	2019	10	28	35	4
24	6	2019	23	40	49	24	6	2019	11	12	33	4
25	6	2019	**	44	48	25	6	2019	11	55	42	4
26	6	2019	0	21	12	26	6	2019	12	38	58	4
27	6	2019	1	2	5	27	6	2019	13	23	11	4
28	6	2019	1	44	26	28	6	2019	14	9	18	4
29	6	2019	2	29	15	29	6	2019	14	58	4	4
30	6	2019	3	17	18	30	6	2019	15	50	24	4
31	6	2019	4	9	40	1	7	2019	16	46	30	4
2	7	2019	5	6	12	2	7	2019	17	45	42	4
3	7	2019	6	6	3	3	7	2019	18	46	32	4
4	7	2019	7	7	32	4	7	2019	19	47	1	4
5	7	2019	8	8	34	5	7	2019	20	45	10	4
6	7	2019	9	7	34	6	7	2019	21	40	25	4
7	7	2019	10	4	2	7	7	2019	22	32	36	4
8	7	2019	10	57	54	8	7	2019	23	22	14	4
9	7	2019	11	49	49	9	7	2019	**	44	48	4
10	7	2019	12	40	39	10	7	2019	0	10	15	4
11	7	2019	13	31	8	11	7	2019	0	57	47	4
12	7	2019	14	22	5	12	7	2019	1	45	29	4
13	7	2019	15	13	53	13	7	2019	2	34	27	4
14	7	2019	16	6	17	14	7	2019	3	24	44	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	7	2019	16	58	46	15	7	2019	4	16	6	4
16	7	2019	17	50	14	16	7	2019	5	7	51	4
17	7	2019	18	40	13	17	7	2019	5	59	2	4
18	7	2019	19	28	4	18	7	2019	6	49	10	4
19	7	2019	20	13	26	19	7	2019	7	37	30	4
20	7	2019	20	56	33	20	7	2019	8	23	52	4
21	7	2019	21	37	54	21	7	2019	9	8	27	4
22	7	2019	22	17	59	22	7	2019	9	51	41	4
23	7	2019	22	58	4	23	7	2019	10	34	20	4
24	7	2019	23	38	56	24	7	2019	11	17	26	4
25	7	2019	**	44	48	25	7	2019	12	1	47	4
26	7	2019	0	21	33	26	7	2019	12	48	19	4
27	7	2019	1	7	5	27	7	2019	13	37	48	4
28	7	2019	1	56	10	28	7	2019	14	31	0	4
29	7	2019	2	49	49	29	7	2019	15	28	1	4
30	7	2019	3	47	43	30	7	2019	16	27	59	4
31	7	2019	4	48	46	31	7	2019	17	29	15	4
32	7	2019	5	51	8	1	8	2019	18	29	51	4
2	8	2019	6	52	45	2	8	2019	19	27	57	4
3	8	2019	7	52	5	3	8	2019	20	23	11	4
4	8	2019	8	48	54	4	8	2019	21	15	34	4
5	8	2019	9	43	17	5	8	2019	22	5	44	4
6	8	2019	10	35	55	6	8	2019	22	54	38	4

7	8	2019	11	27	39	7	8	2019	23	43	13	4
8	8	2019	12	19	1	8	8	2019	**	44	48	4
9	8	2019	13	10	38	9	8	2019	0	31	55	4
10	8	2019	14	2	43	10	8	2019	1	21	49	4
11	8	2019	14	54	49	11	8	2019	2	12	36	4
12	8	2019	15	46	18	12	8	2019	3	3	54	4
13	8	2019	16	36	17	13	8	2019	3	54	59	4
14	8	2019	17	24	25	14	8	2019	4	44	58	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	10	23	15	8	2019	5	33	39	4
16	8	2019	18	54	11	16	8	2019	6	20	30	4
17	8	2019	19	36	3	17	8	2019	7	5	36	4
18	8	2019	20	16	35	18	8	2019	7	49	16	4
19	8	2019	20	56	19	19	8	2019	8	31	59	4
20	8	2019	21	36	27	20	8	2019	9	14	29	4
21	8	2019	22	17	44	21	8	2019	9	57	47	4
22	8	2019	23	1	6	22	8	2019	10	42	37	4
23	8	2019	23	47	27	23	8	2019	11	29	50	4
24	8	2019	**	44	48	24	8	2019	12	20	8	4
25	8	2019	0	37	39	25	8	2019	13	13	47	4
26	8	2019	1	31	48	26	8	2019	14	10	45	4
27	8	2019	2	30	2	27	8	2019	15	10	12	4
28	8	2019	3	30	55	28	8	2019	16	10	28	4
29	8	2019	4	32	41	29	8	2019	17	9	52	4
30	8	2019	5	33	37	30	8	2019	18	7	2	4
31	8	2019	6	32	34	31	8	2019	19	1	51	4
32	8	2019	7	29	33	1	9	2019	19	54	32	4
2	9	2019	8	24	44	2	9	2019	20	45	41	4
3	9	2019	9	18	40	3	9	2019	21	36	7	4
4	9	2019	10	12	1	4	9	2019	22	26	32	4
5	9	2019	11	5	4	5	9	2019	23	17	9	4
6	9	2019	11	58	2	6	9	2019	**	44	48	4
7	9	2019	12	50	53	7	9	2019	0	8	33	4
8	9	2019	13	42	55	8	9	2019	1	0	16	4
9	9	2019	14	33	33	9	9	2019	1	51	41	4
10	9	2019	15	22	3	10	9	2019	2	42	8	4
11	9	2019	16	8	24	11	9	2019	3	30	54	4
12	9	2019	16	52	38	12	9	2019	4	18	9	4
13	9	2019	17	34	57	13	9	2019	5	3	38	4
14	9	2019	18	15	51	14	9	2019	5	47	40	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	56	0	15	9	2019	6	30	40	4
16	9	2019	19	35	51	16	9	2019	7	13	17	4
17	9	2019	20	16	36	17	9	2019	7	56	9	4
18	9	2019	20	58	58	18	9	2019	8	40	17	4
19	9	2019	21	43	43	19	9	2019	9	26	14	4

20	9	2019	22	31	34	20	9	2019	10	14	42	4
21	9	2019	23	22	57	21	9	2019	11	6	4	4
22	9	2019	**	44	48	22	9	2019	12	0	14	4
23	9	2019	0	17	37	23	9	2019	12	56	47	4
24	9	2019	1	15	32	24	9	2019	13	54	48	4
25	9	2019	2	15	6	25	9	2019	14	52	52	4
26	9	2019	3	14	55	26	9	2019	15	49	51	4
27	9	2019	4	13	53	27	9	2019	16	44	59	4
28	9	2019	5	11	20	28	9	2019	17	38	32	4
29	9	2019	6	7	42	29	9	2019	18	30	56	4
30	9	2019	7	3	11	30	9	2019	19	22	47	4
31	9	2019	7	58	16	1	10	2019	20	14	43	4
2	10	2019	8	53	20	2	10	2019	21	7	10	4
3	10	2019	9	48	18	3	10	2019	21	59	56	4
4	10	2019	10	42	53	4	10	2019	22	53	9	4
5	10	2019	11	36	41	5	10	2019	23	46	0	4
6	10	2019	12	28	51	6	10	2019	**	44	48	4
7	10	2019	13	18	47	7	10	2019	0	37	42	4
8	10	2019	14	6	11	8	10	2019	1	27	38	4
9	10	2019	14	50	57	9	10	2019	2	15	33	4
10	10	2019	15	33	39	10	10	2019	3	1	18	4
11	10	2019	16	14	52	11	10	2019	3	45	40	4
12	10	2019	16	55	10	12	10	2019	4	28	56	4
13	10	2019	17	35	17	13	10	2019	5	11	44	4
14	10	2019	18	15	48	14	10	2019	5	54	43	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	10	2019	18	57	52	15	10	2019	6	38	30	4
16	10	2019	19	42	4	16	10	2019	7	24	8	4
17	10	2019	20	29	2	17	10	2019	8	12	1	4
18	10	2019	21	19	8	18	10	2019	9	2	30	4
19	10	2019	22	12	20	19	10	2019	9	55	33	4
20	10	2019	23	7	51	20	10	2019	10	50	33	4
21	10	2019	**	44	48	21	10	2019	11	46	41	4
22	10	2019	0	5	15	22	10	2019	12	43	0	4
23	10	2019	1	3	2	23	10	2019	13	38	23	4
24	10	2019	2	0	14	24	10	2019	14	32	20	4
25	10	2019	2	56	24	25	10	2019	15	24	41	4
26	10	2019	3	51	27	26	10	2019	16	16	9	4
27	10	2019	4	46	14	27	10	2019	17	7	27	4
28	10	2019	5	41	7	28	10	2019	17	59	12	4
29	10	2019	6	36	34	29	10	2019	18	51	58	4
30	10	2019	7	32	42	30	10	2019	19	45	54	4
31	10	2019	8	29	4	31	10	2019	20	40	23	4
1	11	2019	9	24	55	1	11	2019	21	35	6	4
2	11	2019	10	19	30	2	11	2019	22	28	53	4
3	11	2019	11	11	42	3	11	2019	23	20	49	4
4	11	2019	12	1	2	4	11	2019	**	44	48	4
5	11	2019	12	47	23	5	11	2019	0	10	23	4
6	11	2019	13	30	59	6	11	2019	0	57	27	4
7	11	2019	14	12	35	7	11	2019	1	42	12	4

8	11	2019	14	53	2	8	11	2019	2	25	44	4
9	11	2019	15	33	2	9	11	2019	3	8	30	4
10	11	2019	16	13	28	10	11	2019	3	51	19	4
11	11	2019	16	55	2	11	11	2019	4	34	59	4
12	11	2019	17	38	48	12	11	2019	5	20	8	4
13	11	2019	18	25	25	13	11	2019	6	7	47	4
14	11	2019	19	15	17	14	11	2019	6	58	7	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	8	17	15	11	2019	7	51	12	4
16	11	2019	21	3	51	16	11	2019	8	46	28	4
17	11	2019	22	0	37	17	11	2019	9	42	44	4
18	11	2019	22	57	48	18	11	2019	10	38	46	4
19	11	2019	23	54	5	19	11	2019	11	33	42	4
20	11	2019	**	44	48	20	11	2019	12	26	45	4
21	11	2019	0	48	58	21	11	2019	13	17	58	4
22	11	2019	1	42	31	22	11	2019	14	7	52	4
23	11	2019	2	35	18	23	11	2019	14	57	7	4
24	11	2019	3	27	58	24	11	2019	15	46	51	4
25	11	2019	4	21	37	25	11	2019	16	37	53	4
26	11	2019	5	16	32	26	11	2019	17	30	38	4
27	11	2019	6	12	43	27	11	2019	18	25	4	4
28	11	2019	7	9	27	28	11	2019	19	20	18	4
29	11	2019	8	5	35	29	11	2019	20	15	38	4
30	11	2019	9	0	10	30	11	2019	21	9	40	4
1	12	2019	9	51	58	1	12	2019	22	1	24	4
2	12	2019	10	40	32	2	12	2019	22	50	24	4
3	12	2019	11	25	56	3	12	2019	23	36	45	4
4	12	2019	12	8	33	4	12	2019	**	44	48	4
5	12	2019	12	49	18	5	12	2019	0	20	45	4
6	12	2019	13	29	14	6	12	2019	1	3	38	4
7	12	2019	14	9	8	7	12	2019	1	46	5	4
8	12	2019	14	50	1	8	12	2019	2	29	2	4
9	12	2019	15	32	39	9	12	2019	3	13	24	4
10	12	2019	16	18	10	10	12	2019	3	59	50	4
11	12	2019	17	7	14	11	12	2019	4	49	27	4
12	12	2019	17	59	59	12	12	2019	5	42	17	4
13	12	2019	18	56	0	13	12	2019	6	37	59	4
14	12	2019	19	54	4	14	12	2019	7	35	32	4

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	52	22	15	12	2019	8	33	15	4
16	12	2019	21	49	53	16	12	2019	9	29	37	4
17	12	2019	22	45	30	17	12	2019	10	23	53	4
18	12	2019	23	39	6	18	12	2019	11	15	37	4
19	12	2019	**	44	48	19	12	2019	12	5	16	4
20	12	2019	0	31	10	20	12	2019	12	53	39	4
21	12	2019	1	22	30	21	12	2019	13	41	39	4



22	12	2019	2	13	52	22	12	2019	14	30	25	4
23	12	2019	3	6	32	23	12	2019	15	20	51	4
24	12	2019	4	0	39	24	12	2019	16	13	13	4
25	12	2019	4	56	8	25	12	2019	17	7	22	4
26	12	2019	5	52	8	26	12	2019	18	2	16	4
27	12	2019	6	47	20	27	12	2019	18	57	2	4
28	12	2019	7	40	48	28	12	2019	19	50	18	4
29	12	2019	8	31	22	29	12	2019	20	41	6	4
30	12	2019	9	18	41	30	12	2019	21	29	9	4
31	12	2019	10	2	58	31	12	2019	22	14	39	4
1	1	2020	10	44	42	1	1	2020	22	57	58	4
2	1	2020	11	24	47	2	1	2020	23	40	23	4
27	12	2018	22	34	56	27	12	2018	10	12	41	5
28	12	2018	23	28	17	28	12	2018	11	4	1	5
29	12	2018	**	44	48	29	12	2018	11	52	31	5
30	12	2018	0	19	21	30	12	2018	12	39	11	5
31	12	2018	1	8	58	31	12	2018	13	24	53	5
32	12	2018	1	57	50	1	1	2019	14	10	41	5
2	1	2019	2	47	6	2	1	2019	14	57	18	5
3	1	2019	3	36	53	3	1	2019	15	45	2	5
4	1	2019	4	27	13	4	1	2019	16	33	53	5
5	1	2019	5	17	42	5	1	2019	17	23	28	5
6	1	2019	6	7	40	6	1	2019	18	12	59	5
7	1	2019	6	56	21	7	1	2019	19	2	5	5
8	1	2019	7	43	32	8	1	2019	19	50	6	5
9	1	2019	8	28	46	9	1	2019	20	36	43	5
10	1	2019	9	12	7	10	1	2019	21	22	0	5
11	1	2019	9	53	53	11	1	2019	22	6	4	5
12	1	2019	10	34	43	12	1	2019	22	49	58	5
13	1	2019	11	15	37	13	1	2019	23	34	20	5
14	1	2019	11	57	24	14	1	2019	**	44	48	5

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	41	3	15	1	2019	0	20	6	5
16	1	2019	13	27	39	16	1	2019	1	8	13	5
17	1	2019	14	17	59	17	1	2019	1	59	36	5
18	1	2019	15	12	52	18	1	2019	2	54	38	5
19	1	2019	16	12	16	19	1	2019	3	53	46	5
20	1	2019	17	14	55	20	1	2019	4	55	45	5
21	1	2019	18	18	47	21	1	2019	5	58	41	5
22	1	2019	19	21	34	22	1	2019	7	0	24	5
23	1	2019	20	21	33	23	1	2019	7	59	3	5
24	1	2019	21	18	31	24	1	2019	8	54	0	5
25	1	2019	22	12	33	25	1	2019	9	45	43	5
26	1	2019	23	4	20	26	1	2019	10	34	47	5
27	1	2019	23	54	44	27	1	2019	11	22	12	5
28	1	2019	**	44	48	28	1	2019	12	8	45	5
29	1	2019	0	44	21	29	1	2019	12	55	24	5
30	1	2019	1	34	7	30	1	2019	13	42	47	5
31	1	2019	2	24	7	31	1	2019	14	31	2	5
32	1	2019	3	14	13	1	2	2019	15	20	1	5

2	2	2019	4	4	2	2	2	2019	16	9	20	5
3	2	2019	4	52	57	3	2	2019	16	58	13	5
4	2	2019	5	40	18	4	2	2019	17	46	25	5
5	2	2019	6	26	7	5	2	2019	18	33	31	5
6	2	2019	7	10	6	6	2	2019	19	19	18	5
7	2	2019	7	52	28	7	2	2019	20	3	56	5
8	2	2019	8	33	39	8	2	2019	20	47	53	5
9	2	2019	9	14	13	9	2	2019	21	31	30	5
10	2	2019	9	54	58	10	2	2019	22	15	59	5
11	2	2019	10	36	59	11	2	2019	23	1	59	5
12	2	2019	11	21	5	12	2	2019	23	50	22	5
13	2	2019	12	8	14	13	2	2019	**	44	48	5
14	2	2019	12	59	5	14	2	2019	0	42	2	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	54	13	15	2	2019	1	37	2	5
16	2	2019	14	53	28	16	2	2019	2	35	40	5
17	2	2019	15	55	30	17	2	2019	3	36	39	5
18	2	2019	16	58	30	18	2	2019	4	38	12	5
19	2	2019	18	0	33	19	2	2019	5	38	30	5
20	2	2019	19	0	8	20	2	2019	6	36	15	5
21	2	2019	19	57	19	21	2	2019	7	30	49	5
22	2	2019	20	52	10	22	2	2019	8	22	50	5
23	2	2019	21	45	15	23	2	2019	9	12	50	5
24	2	2019	22	37	12	24	2	2019	10	1	38	5
25	2	2019	23	28	20	25	2	2019	10	49	53	5
26	2	2019	**	44	48	26	2	2019	11	38	13	5
27	2	2019	0	19	28	27	2	2019	12	27	6	5
28	2	2019	1	10	17	28	2	2019	13	16	24	5
29	2	2019	2	0	34	1	3	2019	14	5	51	5
2	3	2019	2	49	54	2	3	2019	14	55	1	5
3	3	2019	3	37	47	3	3	2019	15	43	17	5
4	3	2019	4	23	47	4	3	2019	16	30	34	5
5	3	2019	5	8	16	5	3	2019	17	16	45	5
6	3	2019	5	51	9	6	3	2019	18	1	52	5
7	3	2019	6	32	47	7	3	2019	18	46	12	5
8	3	2019	7	13	43	8	3	2019	19	30	15	5
9	3	2019	7	54	32	9	3	2019	20	14	27	5
10	3	2019	8	35	59	10	3	2019	20	59	52	5
11	3	2019	9	19	7	11	3	2019	21	47	6	5
12	3	2019	10	4	37	12	3	2019	22	36	47	5
13	3	2019	10	53	13	13	3	2019	23	29	22	5
14	3	2019	11	45	15	14	3	2019	**	44	48	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	40	51	15	3	2019	0	24	41	5
16	3	2019	13	39	34	16	3	2019	1	22	40	5
17	3	2019	14	40	1	17	3	2019	2	21	51	5

18	3	2019	15	40	45	18	3	2019	3	20	48	5
19	3	2019	16	40	30	19	3	2019	4	18	17	5
20	3	2019	17	38	24	20	3	2019	5	13	34	5
21	3	2019	18	34	38	21	3	2019	6	6	34	5
22	3	2019	19	29	27	22	3	2019	6	58	6	5
23	3	2019	20	23	23	23	3	2019	7	48	29	5
24	3	2019	21	16	46	24	3	2019	8	38	27	5
25	3	2019	22	9	49	25	3	2019	9	28	30	5
26	3	2019	23	2	12	26	3	2019	10	18	45	5
27	3	2019	23	54	6	27	3	2019	11	9	12	5
28	3	2019	**	44	48	28	3	2019	11	59	47	5
29	3	2019	0	44	46	29	3	2019	12	49	51	5
30	3	2019	1	33	44	30	3	2019	13	39	0	5
31	3	2019	2	20	46	31	3	2019	14	26	45	5
32	3	2019	3	5	37	1	4	2019	15	13	15	5
2	4	2019	3	48	57	2	4	2019	15	58	41	5
3	4	2019	4	30	54	3	4	2019	16	43	17	5
4	4	2019	5	12	5	4	4	2019	17	27	34	5
5	4	2019	5	53	7	5	4	2019	18	12	9	5
6	4	2019	6	34	42	6	4	2019	18	57	30	5
7	4	2019	7	17	31	7	4	2019	19	44	36	5
8	4	2019	8	2	38	8	4	2019	20	33	57	5
9	4	2019	8	50	30	9	4	2019	21	25	53	5
10	4	2019	9	41	33	10	4	2019	22	20	22	5
11	4	2019	10	35	37	11	4	2019	23	16	39	5
12	4	2019	11	32	17	12	4	2019	**	44	48	5
13	4	2019	12	30	41	13	4	2019	0	14	14	5
14	4	2019	13	29	27	14	4	2019	1	11	38	5

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN						
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	4	2019	14	27	31	15	4	2019	2	7	42	5
16	4	2019	15	24	17	16	4	2019	3	1	53	5
17	4	2019	16	19	35	17	4	2019	3	54	8	5
18	4	2019	17	13	57	18	4	2019	4	44	46	5
19	4	2019	18	7	53	19	4	2019	5	34	48	5
20	4	2019	19	1	41	20	4	2019	6	24	48	5
21	4	2019	19	55	42	21	4	2019	7	15	11	5
22	4	2019	20	49	47	22	4	2019	8	6	18	5
23	4	2019	21	43	12	23	4	2019	8	57	57	5
24	4	2019	22	35	47	24	4	2019	9	49	44	5
25	4	2019	23	26	40	25	4	2019	10	41	18	5
26	4	2019	**	44	48	26	4	2019	11	31	50	5
27	4	2019	0	15	17	27	4	2019	12	20	53	5
28	4	2019	1	1	30	28	4	2019	13	8	9	5
29	4	2019	1	45	18	29	4	2019	13	53	56	5
30	4	2019	2	27	38	30	4	2019	14	38	43	5
31	4	2019	3	8	53	1	5	2019	15	22	58	5
2	5	2019	3	49	48	2	5	2019	16	7	22	5
3	5	2019	4	31	10	3	5	2019	16	52	40	5
4	5	2019	5	13	46	4	5	2019	17	39	26	5
5	5	2019	5	58	20	5	5	2019	18	28	37	5

6	5	2019	6	45	56	6	5	2019	19	20	35	5
7	5	2019	7	36	48	7	5	2019	20	15	18	5
8	5	2019	8	30	57	8	5	2019	21	12	12	5
9	5	2019	9	27	46	9	5	2019	22	10	10	5
10	5	2019	10	25	59	10	5	2019	23	7	32	5
11	5	2019	11	24	17	11	5	2019	**	44	48	5
12	5	2019	12	21	45	12	5	2019	0	3	31	5
13	5	2019	13	17	36	13	5	2019	0	57	12	5
14	5	2019	14	11	49	14	5	2019	1	48	35	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	5	2019	15	4	40	15	5	2019	2	38	10	5
16	5	2019	15	57	4	16	5	2019	3	26	34	5
17	5	2019	16	49	39	17	5	2019	4	15	2	5
18	5	2019	17	42	49	18	5	2019	5	4	9	5
19	5	2019	18	36	38	19	5	2019	5	54	21	5
20	5	2019	19	30	46	20	5	2019	6	45	50	5
21	5	2019	20	24	20	21	5	2019	7	38	5	5
22	5	2019	21	16	50	22	5	2019	8	30	26	5
23	5	2019	22	7	18	23	5	2019	9	22	19	5
24	5	2019	22	55	13	24	5	2019	10	12	47	5
25	5	2019	23	40	33	25	5	2019	11	1	24	5
26	5	2019	**	44	48	26	5	2019	11	48	2	5
27	5	2019	0	23	19	27	5	2019	12	33	5	5
28	5	2019	1	4	46	28	5	2019	13	17	16	5
29	5	2019	1	45	24	29	5	2019	14	1	12	5
30	5	2019	2	26	6	30	5	2019	14	45	42	5
31	5	2019	3	7	49	31	5	2019	15	31	41	5
32	5	2019	3	51	26	1	6	2019	16	19	47	5
2	6	2019	4	37	45	2	6	2019	17	10	56	5
3	6	2019	5	27	50	3	6	2019	18	5	25	5
4	6	2019	6	21	44	4	6	2019	19	2	50	5
5	6	2019	7	19	2	5	6	2019	20	2	3	5
6	6	2019	8	18	31	6	6	2019	21	1	27	5
7	6	2019	9	18	22	7	6	2019	21	59	4	5
8	6	2019	10	17	5	8	6	2019	22	54	16	5
9	6	2019	11	13	54	9	6	2019	23	46	32	5
10	6	2019	12	8	25	10	6	2019	**	44	48	5
11	6	2019	13	1	4	11	6	2019	0	36	9	5
12	6	2019	13	52	27	12	6	2019	1	24	7	5
13	6	2019	14	43	34	13	6	2019	2	11	11	5
14	6	2019	15	35	9	14	6	2019	2	58	43	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	6	2019	16	27	34	15	6	2019	3	47	15	5
16	6	2019	17	20	47	16	6	2019	4	37	12	5
17	6	2019	18	14	20	17	6	2019	5	28	33	5
18	6	2019	19	7	9	18	6	2019	6	20	44	5

19	6	2019	19	58	40	19	6	2019	7	12	49	5
20	6	2019	20	48	0	20	6	2019	8	4	12	5
21	6	2019	21	34	42	21	6	2019	8	53	58	5
22	6	2019	22	18	51	22	6	2019	9	41	45	5
23	6	2019	23	0	54	23	6	2019	10	27	37	5
24	6	2019	23	41	19	24	6	2019	11	11	54	5
25	6	2019	**	44	48	25	6	2019	11	55	22	5
26	6	2019	0	21	21	26	6	2019	12	38	59	5
27	6	2019	1	1	53	27	6	2019	13	23	33	5
28	6	2019	1	43	54	28	6	2019	14	10	1	5
29	6	2019	2	28	22	29	6	2019	14	59	7	5
30	6	2019	3	16	6	30	6	2019	15	51	44	5
31	6	2019	4	8	12	1	7	2019	16	48	4	5
2	7	2019	5	4	32	2	7	2019	17	47	24	5
3	7	2019	6	4	19	3	7	2019	18	48	14	5
4	7	2019	7	5	53	4	7	2019	19	48	35	5
5	7	2019	8	7	7	5	7	2019	20	46	29	5
6	7	2019	9	6	25	6	7	2019	21	41	24	5
7	7	2019	10	3	15	7	7	2019	22	33	12	5
8	7	2019	10	57	31	8	7	2019	23	22	25	5
9	7	2019	11	49	50	9	7	2019	**	44	48	5
10	7	2019	12	41	4	10	7	2019	0	10	1	5
11	7	2019	13	31	55	11	7	2019	0	57	10	5
12	7	2019	14	23	12	12	7	2019	1	44	31	5
13	7	2019	15	15	16	13	7	2019	2	33	11	5
14	7	2019	16	7	53	14	7	2019	3	23	13	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	7	2019	17	0	28	15	7	2019	4	14	26	5
16	7	2019	17	51	57	16	7	2019	5	6	8	5
17	7	2019	18	41	50	17	7	2019	5	57	22	5
18	7	2019	19	29	31	18	7	2019	6	47	38	5
19	7	2019	20	14	39	19	7	2019	7	36	10	5
20	7	2019	20	57	29	20	7	2019	8	22	48	5
21	7	2019	21	38	31	21	7	2019	9	7	41	5
22	7	2019	22	18	16	22	7	2019	9	51	14	5
23	7	2019	22	58	1	23	7	2019	10	34	14	5
24	7	2019	23	38	32	24	7	2019	11	17	40	5
25	7	2019	**	44	48	25	7	2019	12	2	21	5
26	7	2019	0	20	49	26	7	2019	12	49	13	5
27	7	2019	1	6	2	27	7	2019	13	39	0	5
28	7	2019	1	54	49	28	7	2019	14	32	28	5
29	7	2019	2	48	15	29	7	2019	15	29	41	5
30	7	2019	3	46	0	30	7	2019	16	29	42	5
31	7	2019	4	47	4	31	7	2019	17	30	54	5
32	7	2019	5	49	35	1	8	2019	18	31	18	5
2	8	2019	6	51	27	2	8	2019	19	29	5	5
3	8	2019	7	51	8	3	8	2019	20	23	57	5
4	8	2019	8	48	22	4	8	2019	21	15	54	5
5	8	2019	9	43	10	5	8	2019	22	5	39	5
6	8	2019	10	36	12	6	8	2019	22	54	10	5

7	8	2019	11	28	19	7	8	2019	23	42	22	5
8	8	2019	12	20	3	8	8	2019	**	44	48	5
9	8	2019	13	11	58	9	8	2019	0	30	44	5
10	8	2019	14	4	16	10	8	2019	1	20	22	5
11	8	2019	14	56	30	11	8	2019	2	10	58	5
12	8	2019	15	48	1	12	8	2019	3	2	11	5
13	8	2019	16	37	56	13	8	2019	3	53	17	5
14	8	2019	17	25	55	14	8	2019	4	43	23	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	11	40	15	8	2019	5	32	16	5
16	8	2019	18	55	12	16	8	2019	6	19	21	5
17	8	2019	19	36	46	17	8	2019	7	4	44	5
18	8	2019	20	16	59	18	8	2019	7	48	43	5
19	8	2019	20	56	23	19	8	2019	8	31	46	5
20	8	2019	21	36	11	20	8	2019	9	14	36	5
21	8	2019	22	17	7	21	8	2019	9	58	14	5
22	8	2019	23	0	9	22	8	2019	10	43	24	5
23	8	2019	23	46	13	23	8	2019	11	30	55	5
24	8	2019	**	44	48	24	8	2019	12	21	31	5
25	8	2019	0	36	9	25	8	2019	13	15	22	5
26	8	2019	1	30	8	26	8	2019	14	12	28	5
27	8	2019	2	28	18	27	8	2019	15	11	55	5
28	8	2019	3	29	15	28	8	2019	16	12	2	5
29	8	2019	4	31	14	29	8	2019	17	11	10	5
30	8	2019	5	32	29	30	8	2019	18	7	59	5
31	8	2019	6	31	49	31	8	2019	19	2	23	5
32	8	2019	7	29	14	1	9	2019	19	54	39	5
2	9	2019	8	24	51	2	9	2019	20	45	22	5
3	9	2019	9	19	12	3	9	2019	21	35	24	5
4	9	2019	10	12	56	4	9	2019	22	25	28	5
5	9	2019	11	6	19	5	9	2019	23	15	47	5
6	9	2019	11	59	32	6	9	2019	**	44	48	5
7	9	2019	12	52	32	7	9	2019	0	6	57	5
8	9	2019	13	44	39	8	9	2019	0	58	33	5
9	9	2019	14	35	14	9	9	2019	1	49	58	5
10	9	2019	15	23	37	10	9	2019	2	40	30	5
11	9	2019	16	9	46	11	9	2019	3	29	26	5
12	9	2019	16	53	45	12	9	2019	4	16	54	5
13	9	2019	17	35	46	13	9	2019	5	2	41	5
14	9	2019	18	16	20	14	9	2019	5	47	1	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	56	9	15	9	2019	6	30	21	5
16	9	2019	19	35	41	16	9	2019	7	13	18	5
17	9	2019	20	16	5	17	9	2019	7	56	30	5
18	9	2019	20	58	7	18	9	2019	8	40	58	5
19	9	2019	21	42	34	19	9	2019	9	27	15	5

20	9	2019	22	30	8	20	9	2019	10	16	0	5
21	9	2019	23	21	19	21	9	2019	11	7	36	5
22	9	2019	**	44	48	22	9	2019	12	1	55	5
23	9	2019	0	15	53	23	9	2019	12	58	32	5
24	9	2019	1	13	48	24	9	2019	13	56	28	5
25	9	2019	2	13	31	25	9	2019	14	54	20	5
26	9	2019	3	13	37	26	9	2019	15	51	1	5
27	9	2019	4	12	55	27	9	2019	16	45	45	5
28	9	2019	5	10	47	28	9	2019	17	38	52	5
29	9	2019	6	7	36	29	9	2019	18	30	50	5
30	9	2019	7	3	31	30	9	2019	19	22	15	5
31	9	2019	7	59	1	1	10	2019	20	13	47	5
2	10	2019	8	54	27	2	10	2019	21	5	54	5
3	10	2019	9	49	43	3	10	2019	21	58	24	5
4	10	2019	10	44	31	4	10	2019	22	51	27	5
5	10	2019	11	38	26	5	10	2019	23	44	14	5
6	10	2019	12	30	36	6	10	2019	**	44	48	5
7	10	2019	13	20	25	7	10	2019	0	36	0	5
8	10	2019	14	7	38	8	10	2019	1	26	5	5
9	10	2019	14	52	10	9	10	2019	2	14	13	5
10	10	2019	15	34	35	10	10	2019	3	0	14	5
11	10	2019	16	15	28	11	10	2019	3	44	55	5
12	10	2019	16	55	26	12	10	2019	4	28	30	5
13	10	2019	17	35	12	13	10	2019	5	11	39	5
14	10	2019	18	15	23	14	10	2019	5	54	59	5

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	10	2019	18	57	6	15	10	2019	6	39	5	5
16	10	2019	19	40	59	16	10	2019	7	25	3	5
17	10	2019	20	27	40	17	10	2019	8	13	15	5
18	10	2019	21	17	32	18	10	2019	9	3	59	5
19	10	2019	22	10	36	19	10	2019	9	57	14	5
20	10	2019	23	6	5	20	10	2019	10	52	19	5
21	10	2019	**	44	48	21	10	2019	11	48	25	5
22	10	2019	0	3	35	22	10	2019	12	44	35	5
23	10	2019	1	1	35	23	10	2019	13	39	42	5
24	10	2019	1	59	6	24	10	2019	14	33	17	5
25	10	2019	2	55	39	25	10	2019	15	25	14	5
26	10	2019	3	51	7	26	10	2019	16	16	16	5
27	10	2019	4	46	21	27	10	2019	17	7	8	5
28	10	2019	5	41	39	28	10	2019	17	58	28	5
29	10	2019	6	37	30	29	10	2019	18	50	51	5
30	10	2019	7	33	59	30	10	2019	19	44	27	5
31	10	2019	8	30	38	31	10	2019	20	38	44	5
1	11	2019	9	26	39	1	11	2019	21	33	20	5
2	11	2019	10	21	16	2	11	2019	22	27	8	5
3	11	2019	11	13	25	3	11	2019	23	19	10	5
4	11	2019	12	2	35	4	11	2019	**	44	48	5
5	11	2019	12	48	43	5	11	2019	0	8	56	5
6	11	2019	13	32	2	6	11	2019	0	56	15	5
7	11	2019	14	13	19	7	11	2019	1	41	19	5

8	11	2019	14	53	26	8	11	2019	2	25	10	5
9	11	2019	15	33	5	9	11	2019	3	8	16	5
10	11	2019	16	13	11	10	11	2019	3	51	26	5
11	11	2019	16	54	24	11	11	2019	4	35	27	5
12	11	2019	17	37	49	12	11	2019	5	20	57	5
13	11	2019	18	24	8	13	11	2019	6	8	55	5
14	11	2019	19	13	44	14	11	2019	6	59	32	5

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	6	34	15	11	2019	7	52	51	5
16	11	2019	21	2	3	16	11	2019	8	48	14	5
17	11	2019	21	58	53	17	11	2019	9	44	31	5
18	11	2019	22	56	14	18	11	2019	10	40	26	5
19	11	2019	23	52	49	19	11	2019	11	35	7	5
20	11	2019	**	44	48	20	11	2019	12	27	51	5
21	11	2019	0	48	3	21	11	2019	13	18	41	5
22	11	2019	1	42	0	22	11	2019	14	8	11	5
23	11	2019	2	35	13	23	11	2019	14	57	0	5
24	11	2019	3	28	18	24	11	2019	15	46	18	5
25	11	2019	4	22	22	25	11	2019	16	36	57	5
26	11	2019	5	17	40	26	11	2019	17	29	20	5
27	11	2019	6	14	10	27	11	2019	18	23	29	5
28	11	2019	7	11	7	28	11	2019	19	18	33	5
29	11	2019	8	7	22	29	11	2019	20	13	50	5
30	11	2019	9	1	56	30	11	2019	21	7	56	5
1	12	2019	9	53	37	1	12	2019	21	59	50	5
2	12	2019	10	41	59	2	12	2019	22	49	4	5
3	12	2019	11	27	6	3	12	2019	23	35	43	5
4	12	2019	12	9	25	4	12	2019	**	44	48	5
5	12	2019	12	49	51	5	12	2019	0	20	2	5
6	12	2019	13	29	26	6	12	2019	1	3	15	5
7	12	2019	14	9	0	7	12	2019	1	46	3	5
8	12	2019	14	49	31	8	12	2019	2	29	22	5
9	12	2019	15	31	49	9	12	2019	3	14	4	5
10	12	2019	16	17	0	10	12	2019	4	0	51	5
11	12	2019	17	5	46	11	12	2019	4	50	46	5
12	12	2019	17	58	19	12	12	2019	5	43	52	5
13	12	2019	18	54	13	13	12	2019	6	39	43	5
14	12	2019	19	52	17	14	12	2019	7	37	19	5

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	50	44	15	12	2019	8	34	58	5
16	12	2019	21	48	30	16	12	2019	9	31	7	5
17	12	2019	22	44	28	17	12	2019	10	25	6	5
18	12	2019	23	38	26	18	12	2019	11	16	28	5
19	12	2019	**	44	48	19	12	2019	12	5	43	5
20	12	2019	0	30	56	20	12	2019	12	53	41	5
21	12	2019	1	22	41	21	12	2019	13	41	16	5



22	12	2019	2	14	28	22	12	2019	14	29	38	5
23	12	2019	3	7	30	23	12	2019	15	19	42	5
24	12	2019	4	1	58	24	12	2019	16	11	46	5
25	12	2019	4	57	43	25	12	2019	17	5	41	5
26	12	2019	5	53	53	26	12	2019	18	0	29	5
27	12	2019	6	49	8	27	12	2019	18	55	15	5
28	12	2019	7	42	32	28	12	2019	19	48	39	5
29	12	2019	8	32	55	29	12	2019	20	39	39	5
30	12	2019	9	20	0	30	12	2019	21	27	59	5
31	12	2019	10	3	59	31	12	2019	22	13	47	5
1	1	2020	10	45	23	1	1	2020	22	57	26	5
2	1	2020	11	25	8	2	1	2020	23	40	12	5
27	12	2018	22	34	10	27	12	2018	10	13	38	6
28	12	2018	23	27	53	28	12	2018	11	4	36	6
29	12	2018	**	44	48	29	12	2018	11	52	43	6
30	12	2018	0	19	21	30	12	2018	12	39	0	6
31	12	2018	1	9	19	31	12	2018	13	24	21	6
32	12	2018	1	58	33	1	1	2019	14	9	48	6
2	1	2019	2	48	8	2	1	2019	14	56	8	6
3	1	2019	3	38	11	3	1	2019	15	43	38	6
4	1	2019	4	28	43	4	1	2019	16	32	19	6
5	1	2019	5	19	20	5	1	2019	17	21	50	6
6	1	2019	6	9	19	6	1	2019	18	11	21	6
7	1	2019	6	57	57	7	1	2019	19	0	32	6
8	1	2019	7	44	59	8	1	2019	19	48	44	6
9	1	2019	8	30	1	9	1	2019	20	35	35	6
10	1	2019	9	13	7	10	1	2019	21	21	8	6
11	1	2019	9	54	35	11	1	2019	22	5	31	6
12	1	2019	10	35	7	12	1	2019	22	49	44	6
13	1	2019	11	15	41	13	1	2019	23	34	26	6
14	1	2019	11	57	8	14	1	2019	**	44	48	6

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	40	27	15	1	2019	0	20	33	6
16	1	2019	13	26	42	16	1	2019	1	9	1	6
17	1	2019	14	16	44	17	1	2019	2	0	42	6
18	1	2019	15	11	23	18	1	2019	2	56	1	6
19	1	2019	16	10	38	19	1	2019	3	55	21	6
20	1	2019	17	13	16	20	1	2019	4	57	25	6
21	1	2019	18	17	16	21	1	2019	6	0	17	6
22	1	2019	19	20	17	22	1	2019	7	1	48	6
23	1	2019	20	20	37	23	1	2019	8	0	10	6
24	1	2019	21	17	58	24	1	2019	8	54	45	6
25	1	2019	22	12	23	25	1	2019	9	46	4	6
26	1	2019	23	4	34	26	1	2019	10	34	45	6
27	1	2019	23	55	20	27	1	2019	11	21	47	6
28	1	2019	**	44	48	28	1	2019	12	7	59	6
29	1	2019	0	45	17	29	1	2019	12	54	19	6
30	1	2019	1	35	20	30	1	2019	13	41	27	6
31	1	2019	2	25	34	31	1	2019	14	29	30	6
32	1	2019	3	15	49	1	2	2019	15	18	23	6

2	2	2019	4	5	41	2	2	2019	16	7	41	6
3	2	2019	4	54	34	3	2	2019	16	56	38	6
4	2	2019	5	41	48	4	2	2019	17	45	0	6
5	2	2019	6	27	27	5	2	2019	18	32	19	6
6	2	2019	7	11	11	6	2	2019	19	18	20	6
7	2	2019	7	53	16	7	2	2019	20	3	17	6
8	2	2019	8	34	9	8	2	2019	20	47	32	6
9	2	2019	9	14	23	9	2	2019	21	31	30	6
10	2	2019	9	54	48	10	2	2019	22	16	18	6
11	2	2019	10	36	29	11	2	2019	23	2	38	6
12	2	2019	11	20	16	12	2	2019	23	51	20	6
13	2	2019	12	7	6	13	2	2019	**	44	48	6
14	2	2019	12	57	41	14	2	2019	0	43	18	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	52	38	15	2	2019	1	38	32	6
16	2	2019	14	51	48	16	2	2019	2	37	19	6
17	2	2019	15	53	54	17	2	2019	3	38	18	6
18	2	2019	16	57	4	18	2	2019	4	39	44	6
19	2	2019	17	59	26	19	2	2019	5	39	47	6
20	2	2019	18	59	23	20	2	2019	6	37	12	6
21	2	2019	19	56	58	21	2	2019	7	31	22	6
22	2	2019	20	52	13	22	2	2019	8	22	59	6
23	2	2019	21	45	41	23	2	2019	9	12	35	6
24	2	2019	22	38	1	24	2	2019	10	1	0	6
25	2	2019	23	29	27	25	2	2019	10	48	54	6
26	2	2019	**	44	48	26	2	2019	11	36	57	6
27	2	2019	0	20	51	27	2	2019	12	25	37	6
28	2	2019	1	11	51	28	2	2019	13	14	47	6
29	2	2019	2	2	13	1	3	2019	14	4	11	6
2	3	2019	2	51	33	2	3	2019	14	53	24	6
3	3	2019	3	39	21	3	3	2019	15	41	47	6
4	3	2019	4	25	11	4	3	2019	16	29	17	6
5	3	2019	5	9	27	5	3	2019	17	15	43	6
6	3	2019	5	52	3	6	3	2019	18	1	7	6
7	3	2019	6	33	23	7	3	2019	18	45	45	6
8	3	2019	7	13	59	8	3	2019	19	30	8	6
9	3	2019	7	54	28	9	3	2019	20	14	41	6
10	3	2019	8	35	34	10	3	2019	21	0	26	6
11	3	2019	9	18	23	11	3	2019	21	47	59	6
12	3	2019	10	3	35	12	3	2019	22	37	58	6
13	3	2019	10	51	54	13	3	2019	23	30	47	6
14	3	2019	11	43	43	14	3	2019	**	44	48	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	39	12	15	3	2019	0	26	17	6
16	3	2019	13	37	54	16	3	2019	1	24	20	6
17	3	2019	14	38	29	17	3	2019	2	23	27	6

18	3	2019	15	39	28	18	3	2019	3	22	13	6
19	3	2019	16	39	33	19	3	2019	4	19	24	6
20	3	2019	17	37	50	20	3	2019	5	14	20	6
21	3	2019	18	34	29	21	3	2019	6	6	55	6
22	3	2019	19	29	42	22	3	2019	6	58	2	6
23	3	2019	20	24	1	23	3	2019	7	48	1	6
24	3	2019	21	17	45	24	3	2019	8	37	37	6
25	3	2019	22	11	7	25	3	2019	9	27	20	6
26	3	2019	23	3	42	26	3	2019	10	17	19	6
27	3	2019	23	55	44	27	3	2019	11	7	37	6
28	3	2019	**	44	48	28	3	2019	11	58	7	6
29	3	2019	0	46	27	29	3	2019	12	48	12	6
30	3	2019	1	35	21	30	3	2019	13	37	26	6
31	3	2019	2	22	14	31	3	2019	14	25	22	6
32	3	2019	3	6	53	1	4	2019	15	12	6	6
2	4	2019	3	49	57	2	4	2019	15	57	49	6
3	4	2019	4	31	37	3	4	2019	16	42	44	6
4	4	2019	5	12	28	4	4	2019	17	27	21	6
5	4	2019	5	53	10	5	4	2019	18	12	16	6
6	4	2019	6	34	24	6	4	2019	18	57	57	6
7	4	2019	7	16	53	7	4	2019	19	45	24	6
8	4	2019	8	1	40	8	4	2019	20	35	4	6
9	4	2019	8	49	15	9	4	2019	21	27	16	6
10	4	2019	9	40	3	10	4	2019	22	21	57	6
11	4	2019	10	33	58	11	4	2019	23	18	20	6
12	4	2019	11	30	35	12	4	2019	**	44	48	6
13	4	2019	12	29	4	13	4	2019	0	15	54	6
14	4	2019	13	28	2	14	4	2019	1	13	9	6

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	26	23	15	4	2019	2	8	58	6
16	4	2019	15	23	32	16	4	2019	3	2	49	6
17	4	2019	16	19	14	17	4	2019	3	54	41	6
18	4	2019	17	14	0	18	4	2019	4	44	54	6
19	4	2019	18	8	21	19	4	2019	5	34	32	6
20	4	2019	19	2	31	20	4	2019	6	24	9	6
21	4	2019	19	56	52	21	4	2019	7	14	10	6
22	4	2019	20	51	13	22	4	2019	8	4	59	6
23	4	2019	21	44	49	23	4	2019	8	56	24	6
24	4	2019	22	37	29	24	4	2019	9	48	4	6
25	4	2019	23	28	21	25	4	2019	10	39	36	6
26	4	2019	**	44	48	26	4	2019	11	30	13	6
27	4	2019	0	16	51	27	4	2019	12	19	25	6
28	4	2019	1	2	52	28	4	2019	13	6	53	6
29	4	2019	1	46	26	29	4	2019	13	52	56	6
30	4	2019	2	28	29	30	4	2019	14	38	2	6
31	4	2019	3	9	25	1	5	2019	15	22	36	6
2	5	2019	3	49	59	2	5	2019	16	7	21	6
3	5	2019	4	31	0	3	5	2019	16	53	0	6
4	5	2019	5	13	15	4	5	2019	17	40	7	6
5	5	2019	5	57	29	5	5	2019	18	29	37	6

6	5	2019	6	44	46	6	5	2019	19	21	54	6
7	5	2019	7	35	22	7	5	2019	20	16	50	6
8	5	2019	8	29	19	8	5	2019	21	13	53	6
9	5	2019	9	26	3	9	5	2019	22	11	53	6
10	5	2019	10	24	18	10	5	2019	23	9	8	6
11	5	2019	11	22	47	11	5	2019	**	44	48	6
12	5	2019	12	20	31	12	5	2019	0	4	54	6
13	5	2019	13	16	42	13	5	2019	0	58	16	6
14	5	2019	14	11	17	14	5	2019	1	49	18	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN			BULAN			o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		o
15	5	2019	15	4	33	15	5	2019	2	38	29		6
16	5	2019	15	57	21	16	5	2019	3	26	28		6
17	5	2019	16	50	19	17	5	2019	4	14	33		6
18	5	2019	17	43	51	18	5	2019	5	3	16		6
19	5	2019	18	37	58	19	5	2019	5	53	9		6
20	5	2019	19	32	20	20	5	2019	6	44	23		6
21	5	2019	20	26	2	21	5	2019	7	36	27		6
22	5	2019	21	18	33	22	5	2019	8	28	43		6
23	5	2019	22	8	56	23	5	2019	9	20	37		6
24	5	2019	22	56	42	24	5	2019	10	11	12		6
25	5	2019	23	41	48	25	5	2019	11	0	2		6
26	5	2019	**	44	48	26	5	2019	11	46	55		6
27	5	2019	0	24	17	27	5	2019	12	32	15		6
28	5	2019	1	5	26	28	5	2019	13	16	45		6
29	5	2019	1	45	44	29	5	2019	14	1	1		6
30	5	2019	2	26	6	30	5	2019	14	45	53		6
31	5	2019	3	7	27	31	5	2019	15	32	12		6
32	5	2019	3	50	44	1	6	2019	16	20	39		6
2	6	2019	4	36	43	2	6	2019	17	12	7		6
3	6	2019	5	26	30	3	6	2019	18	6	53		6
4	6	2019	6	20	10	4	6	2019	19	4	29		6
5	6	2019	7	17	20	5	6	2019	20	3	47		6
6	6	2019	8	16	48	6	6	2019	21	3	7		6
7	6	2019	9	16	47	7	6	2019	22	0	33		6
8	6	2019	10	15	44	8	6	2019	22	55	28		6
9	6	2019	11	12	52	9	6	2019	23	47	23		6
10	6	2019	12	7	46	10	6	2019	**	44	48		6
11	6	2019	13	0	49	11	6	2019	0	36	36		6
12	6	2019	13	52	36	12	6	2019	1	24	9		6
13	6	2019	14	44	6	13	6	2019	2	10	50		6
14	6	2019	15	36	3	14	6	2019	2	57	59		6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN			BULAN			o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		o
15	6	2019	16	28	47	15	6	2019	3	46	10		6
16	6	2019	17	22	16	16	6	2019	4	35	49		6
17	6	2019	18	15	59	17	6	2019	5	26	58		6
18	6	2019	19	8	52	18	6	2019	6	19	2		6

19	6	2019	20	0	22	19	6	2019	7	11	5	6
20	6	2019	20	49	34	20	6	2019	8	2	34	6
21	6	2019	21	36	4	21	6	2019	8	52	29	6
22	6	2019	22	19	58	22	6	2019	9	40	31	6
23	6	2019	23	1	43	23	6	2019	10	26	40	6
24	6	2019	23	41	48	24	6	2019	11	11	15	6
25	6	2019	**	44	48	25	6	2019	11	55	3	6
26	6	2019	0	21	30	26	6	2019	12	39	1	6
27	6	2019	1	1	42	27	6	2019	13	23	55	6
28	6	2019	1	43	21	28	6	2019	14	10	43	6
29	6	2019	2	27	29	29	6	2019	15	0	9	6
30	6	2019	3	14	54	30	6	2019	15	53	4	6
31	6	2019	4	6	43	1	7	2019	16	49	39	6
2	7	2019	5	2	52	2	7	2019	17	49	7	6
3	7	2019	6	2	35	3	7	2019	18	49	57	6
4	7	2019	7	4	13	4	7	2019	19	50	9	6
5	7	2019	8	5	40	5	7	2019	20	47	48	6
6	7	2019	9	5	16	6	7	2019	21	42	23	6
7	7	2019	10	2	28	7	7	2019	22	33	47	6
8	7	2019	10	57	8	8	7	2019	23	22	37	6
9	7	2019	11	49	51	9	7	2019	**	44	48	6
10	7	2019	12	41	29	10	7	2019	0	9	48	6
11	7	2019	13	32	42	11	7	2019	0	56	33	6
12	7	2019	14	24	19	12	7	2019	1	43	33	6
13	7	2019	15	16	41	13	7	2019	2	31	55	6
14	7	2019	16	9	30	14	7	2019	3	21	42	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	7	2019	17	2	11	15	7	2019	4	12	45	6
16	7	2019	17	53	40	16	7	2019	5	4	24	6
17	7	2019	18	43	27	17	7	2019	5	55	41	6
18	7	2019	19	30	58	18	7	2019	6	46	5	6
19	7	2019	20	15	51	19	7	2019	7	34	50	6
20	7	2019	20	58	24	20	7	2019	8	21	44	6
21	7	2019	21	39	8	21	7	2019	9	6	55	6
22	7	2019	22	18	33	22	7	2019	9	50	48	6
23	7	2019	22	57	58	23	7	2019	10	34	7	6
24	7	2019	23	38	9	24	7	2019	11	17	53	6
25	7	2019	**	44	48	25	7	2019	12	2	55	6
26	7	2019	0	20	4	26	7	2019	12	50	7	6
27	7	2019	1	4	58	27	7	2019	13	40	13	6
28	7	2019	1	53	27	28	7	2019	14	33	56	6
29	7	2019	2	46	40	29	7	2019	15	31	20	6
30	7	2019	3	44	17	30	7	2019	16	31	26	6
31	7	2019	4	45	21	31	7	2019	17	32	33	6
32	7	2019	5	48	1	1	8	2019	18	32	45	6
2	8	2019	6	50	9	2	8	2019	19	30	14	6
3	8	2019	7	50	12	3	8	2019	20	24	42	6
4	8	2019	8	47	49	4	8	2019	21	16	15	6
5	8	2019	9	43	2	5	8	2019	22	5	34	6
6	8	2019	10	36	30	6	8	2019	22	53	41	6

7	8	2019	11	29	0	7	8	2019	23	41	31	6
8	8	2019	12	21	4	8	8	2019	**	44	48	6
9	8	2019	13	13	17	9	8	2019	0	29	32	6
10	8	2019	14	5	49	10	8	2019	1	18	54	6
11	8	2019	14	58	11	11	8	2019	2	9	20	6
12	8	2019	15	49	45	12	8	2019	3	0	28	6
13	8	2019	16	39	36	13	8	2019	3	51	35	6
14	8	2019	17	27	26	14	8	2019	4	41	47	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	12	58	15	8	2019	5	30	51	6
16	8	2019	18	56	14	16	8	2019	6	18	11	6
17	8	2019	19	37	29	17	8	2019	7	3	51	6
18	8	2019	20	17	23	18	8	2019	7	48	10	6
19	8	2019	20	56	27	19	8	2019	8	31	32	6
20	8	2019	21	35	54	20	8	2019	9	14	43	6
21	8	2019	22	16	31	21	8	2019	9	58	41	6
22	8	2019	22	59	13	22	8	2019	10	44	11	6
23	8	2019	23	44	59	23	8	2019	11	32	1	6
24	8	2019	**	44	48	24	8	2019	12	22	53	6
25	8	2019	0	34	39	25	8	2019	13	16	58	6
26	8	2019	1	28	27	26	8	2019	14	14	11	6
27	8	2019	2	26	34	27	8	2019	15	13	38	6
28	8	2019	3	27	35	28	8	2019	16	13	37	6
29	8	2019	4	29	46	29	8	2019	17	12	29	6
30	8	2019	5	31	21	30	8	2019	18	8	56	6
31	8	2019	6	31	4	31	8	2019	19	2	56	6
32	8	2019	7	28	55	1	9	2019	19	54	45	6
2	9	2019	8	24	58	2	9	2019	20	45	3	6
3	9	2019	9	19	44	3	9	2019	21	34	41	6
4	9	2019	10	13	51	4	9	2019	22	24	23	6
5	9	2019	11	7	33	5	9	2019	23	14	24	6
6	9	2019	12	1	3	6	9	2019	**	44	48	6
7	9	2019	12	54	13	7	9	2019	0	5	21	6
8	9	2019	13	46	23	8	9	2019	0	56	50	6
9	9	2019	14	36	57	9	9	2019	1	48	14	6
10	9	2019	15	25	12	10	9	2019	2	38	51	6
11	9	2019	16	11	8	11	9	2019	3	27	57	6
12	9	2019	16	54	52	12	9	2019	4	15	40	6
13	9	2019	17	36	35	13	9	2019	5	1	43	6
14	9	2019	18	16	50	14	9	2019	5	46	22	6

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	56	19	15	9	2019	6	30	1	6
16	9	2019	19	35	30	16	9	2019	7	13	19	6
17	9	2019	20	15	34	17	9	2019	7	56	52	6
18	9	2019	20	57	17	18	9	2019	8	41	39	6
19	9	2019	21	41	24	19	9	2019	9	28	16	6

20	9	2019	22	28	43	20	9	2019	10	17	18	6
21	9	2019	23	19	42	21	9	2019	11	9	9	6
22	9	2019	**	44	48	22	9	2019	12	3	38	6
23	9	2019	0	14	8	23	9	2019	13	0	17	6
24	9	2019	1	12	5	24	9	2019	13	58	9	6
25	9	2019	2	11	56	25	9	2019	14	55	48	6
26	9	2019	3	12	18	26	9	2019	15	52	10	6
27	9	2019	4	11	58	27	9	2019	16	46	30	6
28	9	2019	5	10	15	28	9	2019	17	39	12	6
29	9	2019	6	7	29	29	9	2019	18	30	43	6
30	9	2019	7	3	51	30	9	2019	19	21	42	6
31	9	2019	7	59	46	1	10	2019	20	12	51	6
2	10	2019	8	55	35	2	10	2019	21	4	37	6
3	10	2019	9	51	9	3	10	2019	21	56	51	6
4	10	2019	10	46	10	4	10	2019	22	49	44	6
5	10	2019	11	40	11	5	10	2019	23	42	29	6
6	10	2019	12	32	21	6	10	2019	**	44	48	6
7	10	2019	13	22	4	7	10	2019	0	34	17	6
8	10	2019	14	9	6	8	10	2019	1	24	32	6
9	10	2019	14	53	22	9	10	2019	2	12	52	6
10	10	2019	15	35	30	10	10	2019	2	59	10	6
11	10	2019	16	16	5	11	10	2019	3	44	9	6
12	10	2019	16	55	42	12	10	2019	4	28	4	6
13	10	2019	17	35	7	13	10	2019	5	11	34	6
14	10	2019	18	14	57	14	10	2019	5	55	14	6

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	10	2019	18	56	21	15	10	2019	6	39	41	6
16	10	2019	19	39	54	16	10	2019	7	25	59	6
17	10	2019	20	26	18	17	10	2019	8	14	29	6
18	10	2019	21	15	56	18	10	2019	9	5	29	6
19	10	2019	22	8	52	19	10	2019	9	58	55	6
20	10	2019	23	4	19	20	10	2019	10	54	5	6
21	10	2019	**	44	48	21	10	2019	11	50	10	6
22	10	2019	0	1	55	22	10	2019	12	46	10	6
23	10	2019	1	0	8	23	10	2019	13	41	1	6
24	10	2019	1	57	58	24	10	2019	14	34	15	6
25	10	2019	2	54	53	25	10	2019	15	25	48	6
26	10	2019	3	50	47	26	10	2019	16	16	23	6
27	10	2019	4	46	27	27	10	2019	17	6	49	6
28	10	2019	5	42	12	28	10	2019	17	57	43	6
29	10	2019	6	38	27	29	10	2019	18	49	43	6
30	10	2019	7	35	18	30	10	2019	19	43	1	6
31	10	2019	8	32	13	31	10	2019	20	37	4	6
1	11	2019	9	28	23	1	11	2019	21	31	34	6
2	11	2019	10	23	3	2	11	2019	22	25	22	6
3	11	2019	11	15	9	3	11	2019	23	17	31	6
4	11	2019	12	4	9	4	11	2019	**	44	48	6
5	11	2019	12	50	3	5	11	2019	0	7	30	6
6	11	2019	13	33	5	6	11	2019	0	55	4	6
7	11	2019	14	14	3	7	11	2019	1	40	25	6

8	11	2019	14	53	50	8	11	2019	2	24	36	6
9	11	2019	15	33	9	9	11	2019	3	8	3	6
10	11	2019	16	12	53	10	11	2019	3	51	34	6
11	11	2019	16	53	45	11	11	2019	4	35	56	6
12	11	2019	17	36	50	12	11	2019	5	21	46	6
13	11	2019	18	22	50	13	11	2019	6	10	4	6
14	11	2019	19	12	12	14	11	2019	7	0	58	6

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN						
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	4	50	15	11	2019	7	54	30	6
16	11	2019	21	0	16	16	11	2019	8	50	1	6
17	11	2019	21	57	9	17	11	2019	9	46	17	6
18	11	2019	22	54	41	18	11	2019	10	42	5	6
19	11	2019	23	51	32	19	11	2019	11	36	33	6
20	11	2019	**	44	48	20	11	2019	12	28	57	6
21	11	2019	0	47	8	21	11	2019	13	19	25	6
22	11	2019	1	41	29	22	11	2019	14	8	29	6
23	11	2019	2	35	7	23	11	2019	14	56	53	6
24	11	2019	3	28	38	24	11	2019	15	45	46	6
25	11	2019	4	23	8	25	11	2019	16	36	0	6
26	11	2019	5	18	48	26	11	2019	17	28	2	6
27	11	2019	6	15	37	27	11	2019	18	21	55	6
28	11	2019	7	12	48	28	11	2019	19	16	48	6
29	11	2019	8	9	10	29	11	2019	20	12	2	6
30	11	2019	9	3	43	30	11	2019	21	6	12	6
1	12	2019	9	55	17	1	12	2019	21	58	16	6
2	12	2019	10	43	26	2	12	2019	22	47	44	6
3	12	2019	11	28	17	3	12	2019	23	34	40	6
4	12	2019	12	10	18	4	12	2019	**	44	48	6
5	12	2019	12	50	24	5	12	2019	0	19	20	6
6	12	2019	13	29	39	6	12	2019	1	2	53	6
7	12	2019	14	8	51	7	12	2019	1	46	2	6
8	12	2019	14	49	1	8	12	2019	2	29	41	6
9	12	2019	15	30	58	9	12	2019	3	14	45	6
10	12	2019	16	15	50	10	12	2019	4	1	52	6
11	12	2019	17	4	19	11	12	2019	4	52	6	6
12	12	2019	17	56	38	12	12	2019	5	45	27	6
13	12	2019	18	52	25	13	12	2019	6	41	28	6
14	12	2019	19	50	31	14	12	2019	7	39	7	6

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN						
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	49	6	15	12	2019	8	36	41	6
16	12	2019	21	47	7	16	12	2019	9	32	39	6
17	12	2019	22	43	25	17	12	2019	10	26	19	6
18	12	2019	23	37	46	18	12	2019	11	17	19	6
19	12	2019	**	44	48	19	12	2019	12	6	10	6
20	12	2019	0	30	42	20	12	2019	12	53	43	6
21	12	2019	1	22	52	21	12	2019	13	40	53	6



22	12	2019	2	15	4	22	12	2019	14	28	51	6
23	12	2019	3	8	29	23	12	2019	15	18	33	6
24	12	2019	4	3	18	24	12	2019	16	10	18	6
25	12	2019	4	59	18	25	12	2019	17	4	0	6
26	12	2019	5	55	38	26	12	2019	17	58	41	6
27	12	2019	6	50	56	27	12	2019	18	53	28	6
28	12	2019	7	44	16	28	12	2019	19	46	59	6
29	12	2019	8	34	29	29	12	2019	20	38	13	6
30	12	2019	9	21	18	30	12	2019	21	26	48	6
31	12	2019	10	5	0	31	12	2019	22	12	55	6
1	1	2020	10	46	5	1	1	2020	22	56	54	6
2	1	2020	11	25	30	2	1	2020	23	40	0	6
27	12	2018	22	33	23	27	12	2018	10	14	34	7
28	12	2018	23	27	30	28	12	2018	11	5	11	7
29	12	2018	**	44	48	29	12	2018	11	52	55	7
30	12	2018	0	19	21	30	12	2018	12	38	50	7
31	12	2018	1	9	41	31	12	2018	13	23	49	7
32	12	2018	1	59	16	1	1	2019	14	8	56	7
2	1	2019	2	49	10	2	1	2019	14	54	58	7
3	1	2019	3	39	29	3	1	2019	15	42	14	7
4	1	2019	4	30	13	4	1	2019	16	30	44	7
5	1	2019	5	20	57	5	1	2019	17	20	10	7
6	1	2019	6	10	59	6	1	2019	18	9	43	7
7	1	2019	6	59	33	7	1	2019	18	59	0	7
8	1	2019	7	46	27	8	1	2019	19	47	22	7
9	1	2019	8	31	16	9	1	2019	20	34	27	7
10	1	2019	9	14	7	10	1	2019	21	20	17	7
11	1	2019	9	55	18	11	1	2019	22	4	58	7
12	1	2019	10	35	31	12	1	2019	22	49	30	7
13	1	2019	11	15	45	13	1	2019	23	34	32	7
14	1	2019	11	56	51	14	1	2019	**	44	48	7

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	39	50	15	1	2019	0	21	0	7
16	1	2019	13	25	45	16	1	2019	1	9	48	7
17	1	2019	14	15	29	17	1	2019	2	1	49	7
18	1	2019	15	9	53	18	1	2019	2	57	24	7
19	1	2019	16	9	0	19	1	2019	3	56	56	7
20	1	2019	17	11	37	20	1	2019	4	59	5	7
21	1	2019	18	15	44	21	1	2019	6	1	53	7
22	1	2019	19	19	0	22	1	2019	7	3	13	7
23	1	2019	20	19	40	23	1	2019	8	1	17	7
24	1	2019	21	17	24	24	1	2019	8	55	30	7
25	1	2019	22	12	13	25	1	2019	9	46	25	7
26	1	2019	23	4	47	26	1	2019	10	34	43	7
27	1	2019	23	55	55	27	1	2019	11	21	22	7
28	1	2019	**	44	48	28	1	2019	12	7	13	7
29	1	2019	0	46	13	29	1	2019	12	53	14	7
30	1	2019	1	36	34	30	1	2019	13	40	7	7
31	1	2019	2	27	1	31	1	2019	14	27	58	7
32	1	2019	3	17	25	1	2	2019	15	16	44	7

2	2	2019	4	7	21	2	2	2019	16	6	1	7
3	2	2019	4	56	12	3	2	2019	16	55	3	7
4	2	2019	5	43	19	4	2	2019	17	43	34	7
5	2	2019	6	28	47	5	2	2019	18	31	5	7
6	2	2019	7	12	17	6	2	2019	19	17	23	7
7	2	2019	7	54	4	7	2	2019	20	2	37	7
8	2	2019	8	34	39	8	2	2019	20	47	12	7
9	2	2019	9	14	34	9	2	2019	21	31	29	7
10	2	2019	9	54	39	10	2	2019	22	16	37	7
11	2	2019	10	36	0	11	2	2019	23	3	18	7
12	2	2019	11	19	26	12	2	2019	23	52	19	7
13	2	2019	12	5	58	13	2	2019	**	44	48	7
14	2	2019	12	56	18	14	2	2019	0	44	35	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	51	3	15	2	2019	1	40	2	7
16	2	2019	14	50	8	16	2	2019	2	38	57	7
17	2	2019	15	52	17	17	2	2019	3	39	57	7
18	2	2019	16	55	39	18	2	2019	4	41	16	7
19	2	2019	17	58	19	19	2	2019	5	41	4	7
20	2	2019	18	58	36	20	2	2019	6	38	9	7
21	2	2019	19	56	36	21	2	2019	7	31	56	7
22	2	2019	20	52	16	22	2	2019	8	23	8	7
23	2	2019	21	46	8	23	2	2019	9	12	19	7
24	2	2019	22	38	49	24	2	2019	10	0	22	7
25	2	2019	23	30	35	25	2	2019	10	47	56	7
26	2	2019	**	44	48	26	2	2019	11	35	41	7
27	2	2019	0	22	14	27	2	2019	12	24	8	7
28	2	2019	1	13	25	28	2	2019	13	13	10	7
29	2	2019	2	3	53	1	3	2019	14	2	31	7
2	3	2019	2	53	12	2	3	2019	14	51	47	7
3	3	2019	3	40	55	3	3	2019	15	40	18	7
4	3	2019	4	26	35	4	3	2019	16	27	59	7
5	3	2019	5	10	37	5	3	2019	17	14	40	7
6	3	2019	5	52	57	6	3	2019	18	0	21	7
7	3	2019	6	33	59	7	3	2019	18	45	19	7
8	3	2019	7	14	16	8	3	2019	19	30	2	7
9	3	2019	7	54	24	9	3	2019	20	14	54	7
10	3	2019	8	35	10	10	3	2019	21	0	59	7
11	3	2019	9	17	39	11	3	2019	21	48	52	7
12	3	2019	10	2	32	12	3	2019	22	39	9	7
13	3	2019	10	50	34	13	3	2019	23	32	14	7
14	3	2019	11	42	10	14	3	2019	**	44	48	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	37	32	15	3	2019	0	27	54	7
16	3	2019	13	36	14	16	3	2019	1	26	1	7
17	3	2019	14	36	57	17	3	2019	2	25	4	7

18	3	2019	15	38	10	18	3	2019	3	23	39	7
19	3	2019	16	38	35	19	3	2019	4	20	32	7
20	3	2019	17	37	16	20	3	2019	5	15	5	7
21	3	2019	18	34	20	21	3	2019	6	7	16	7
22	3	2019	19	29	57	22	3	2019	6	57	59	7
23	3	2019	20	24	40	23	3	2019	7	47	34	7
24	3	2019	21	18	46	24	3	2019	8	36	47	7
25	3	2019	22	12	25	25	3	2019	9	26	10	7
26	3	2019	23	5	14	26	3	2019	10	15	54	7
27	3	2019	23	57	23	27	3	2019	11	6	1	7
28	3	2019	**	44	48	28	3	2019	11	56	26	7
29	3	2019	0	48	8	29	3	2019	12	46	32	7
30	3	2019	1	36	59	30	3	2019	13	35	52	7
31	3	2019	2	23	43	31	3	2019	14	23	59	7
32	3	2019	3	8	9	1	4	2019	15	10	57	7
2	4	2019	3	50	57	2	4	2019	15	56	57	7
3	4	2019	4	32	19	3	4	2019	16	42	10	7
4	4	2019	5	12	51	4	4	2019	17	27	7	7
5	4	2019	5	53	13	5	4	2019	18	12	23	7
6	4	2019	6	34	6	6	4	2019	18	58	25	7
7	4	2019	7	16	15	7	4	2019	19	46	12	7
8	4	2019	8	0	42	8	4	2019	20	36	11	7
9	4	2019	8	47	59	9	4	2019	21	28	39	7
10	4	2019	9	38	33	10	4	2019	22	23	32	7
11	4	2019	10	32	19	11	4	2019	23	20	1	7
12	4	2019	11	28	53	12	4	2019	**	44	48	7
13	4	2019	12	27	27	13	4	2019	0	17	35	7
14	4	2019	13	26	37	14	4	2019	1	14	41	7

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	25	16	15	4	2019	2	10	15	7
16	4	2019	15	22	46	16	4	2019	3	3	45	7
17	4	2019	16	18	52	17	4	2019	3	55	14	7
18	4	2019	17	14	4	18	4	2019	4	45	3	7
19	4	2019	18	8	49	19	4	2019	5	34	16	7
20	4	2019	19	3	21	20	4	2019	6	23	30	7
21	4	2019	19	58	3	21	4	2019	7	13	9	7
22	4	2019	20	52	40	22	4	2019	8	3	39	7
23	4	2019	21	46	27	23	4	2019	8	54	51	7
24	4	2019	22	39	12	24	4	2019	9	46	23	7
25	4	2019	23	30	2	25	4	2019	10	37	54	7
26	4	2019	**	44	48	26	4	2019	11	28	34	7
27	4	2019	0	18	25	27	4	2019	12	17	55	7
28	4	2019	1	4	15	28	4	2019	13	5	38	7
29	4	2019	1	47	34	29	4	2019	13	51	57	7
30	4	2019	2	29	19	30	4	2019	14	37	20	7
31	4	2019	3	9	56	1	5	2019	15	22	15	7
2	5	2019	3	50	10	2	5	2019	16	7	20	7
3	5	2019	4	30	50	3	5	2019	16	53	20	7
4	5	2019	5	12	45	4	5	2019	17	40	48	7
5	5	2019	5	56	38	5	5	2019	18	30	38	7

6	5	2019	6	43	35	6	5	2019	19	23	13	7
7	5	2019	7	33	55	7	5	2019	20	18	23	7
8	5	2019	8	27	41	8	5	2019	21	15	35	7
9	5	2019	9	24	20	9	5	2019	22	13	36	7
10	5	2019	10	22	38	10	5	2019	23	10	45	7
11	5	2019	11	21	16	11	5	2019	**	44	48	7
12	5	2019	12	19	16	12	5	2019	0	6	17	7
13	5	2019	13	15	47	13	5	2019	0	59	20	7
14	5	2019	14	10	46	14	5	2019	1	50	0	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN			BULAN			o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		o
15	5	2019	15	4	26	15	5	2019	2	38	48	7	
16	5	2019	15	57	38	16	5	2019	3	26	22	7	
17	5	2019	16	51	0	17	5	2019	4	14	3	7	
18	5	2019	17	44	53	18	5	2019	5	2	24	7	
19	5	2019	18	39	19	19	5	2019	5	51	57	7	
20	5	2019	19	33	54	20	5	2019	6	42	55	7	
21	5	2019	20	27	44	21	5	2019	7	34	48	7	
22	5	2019	21	20	17	22	5	2019	8	26	59	7	
23	5	2019	22	10	36	23	5	2019	9	18	55	7	
24	5	2019	22	58	11	24	5	2019	10	9	38	7	
25	5	2019	23	43	4	25	5	2019	10	58	39	7	
26	5	2019	**	44	48	26	5	2019	11	45	47	7	
27	5	2019	0	25	16	27	5	2019	12	31	25	7	
28	5	2019	1	6	6	28	5	2019	13	16	15	7	
29	5	2019	1	46	4	29	5	2019	14	0	51	7	
30	5	2019	2	26	5	30	5	2019	14	46	3	7	
31	5	2019	3	7	6	31	5	2019	15	32	44	7	
32	5	2019	3	50	1	1	6	2019	16	21	31	7	
2	6	2019	4	35	40	2	6	2019	17	13	19	7	
3	6	2019	5	25	9	3	6	2019	18	8	21	7	
4	6	2019	6	18	35	4	6	2019	19	6	8	7	
5	6	2019	7	15	37	5	6	2019	20	5	31	7	
6	6	2019	8	15	5	6	6	2019	21	4	47	7	
7	6	2019	9	15	12	7	6	2019	22	2	2	7	
8	6	2019	10	14	23	8	6	2019	22	56	40	7	
9	6	2019	11	11	51	9	6	2019	23	48	14	7	
10	6	2019	12	7	7	10	6	2019	**	44	48	7	
11	6	2019	13	0	34	11	6	2019	0	37	2	7	
12	6	2019	13	52	45	12	6	2019	1	24	12	7	
13	6	2019	14	44	38	13	6	2019	2	10	29	7	
14	6	2019	15	36	58	14	6	2019	2	57	15	7	

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM				
LATITUD			BULAN			BULAN			BULAN			o	
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s		o
15	6	2019	16	30	1	15	6	2019	3	45	5	7	
16	6	2019	17	23	45	16	6	2019	4	34	27	7	
17	6	2019	18	17	39	17	6	2019	5	25	22	7	
18	6	2019	19	10	36	18	6	2019	6	17	20	7	

19	6	2019	20	2	4	19	6	2019	7	9	22	7
20	6	2019	20	51	8	20	6	2019	8	0	55	7
21	6	2019	21	37	26	21	6	2019	8	51	1	7
22	6	2019	22	21	4	22	6	2019	9	39	16	7
23	6	2019	23	2	32	23	6	2019	10	25	42	7
24	6	2019	23	42	18	24	6	2019	11	10	36	7
25	6	2019	**	44	48	25	6	2019	11	54	44	7
26	6	2019	0	21	39	26	6	2019	12	39	2	7
27	6	2019	1	1	30	27	6	2019	13	24	17	7
28	6	2019	1	42	48	28	6	2019	14	11	26	7
29	6	2019	2	26	36	29	6	2019	15	1	12	7
30	6	2019	3	13	41	30	6	2019	15	54	25	7
31	6	2019	4	5	15	1	7	2019	16	51	14	7
2	7	2019	5	1	12	2	7	2019	17	50	50	7
3	7	2019	6	0	51	3	7	2019	18	51	40	7
4	7	2019	7	2	33	4	7	2019	19	51	44	7
5	7	2019	8	4	13	5	7	2019	20	49	7	7
6	7	2019	9	4	7	6	7	2019	21	43	22	7
7	7	2019	10	1	42	7	7	2019	22	34	23	7
8	7	2019	10	56	45	8	7	2019	23	22	48	7
9	7	2019	11	49	52	9	7	2019	**	44	48	7
10	7	2019	12	41	54	10	7	2019	0	9	34	7
11	7	2019	13	33	30	11	7	2019	0	55	56	7
12	7	2019	14	25	27	12	7	2019	1	42	34	7
13	7	2019	15	18	5	13	7	2019	2	30	38	7
14	7	2019	16	11	6	14	7	2019	3	20	10	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	7	2019	17	3	54	15	7	2019	4	11	4	7
16	7	2019	17	55	23	16	7	2019	5	2	41	7
17	7	2019	18	45	5	17	7	2019	5	54	0	7
18	7	2019	19	32	25	18	7	2019	6	44	32	7
19	7	2019	20	17	4	19	7	2019	7	33	30	7
20	7	2019	20	59	20	20	7	2019	8	20	39	7
21	7	2019	21	39	45	21	7	2019	9	6	9	7
22	7	2019	22	18	50	22	7	2019	9	50	21	7
23	7	2019	22	57	55	23	7	2019	10	34	0	7
24	7	2019	23	37	45	24	7	2019	11	18	7	7
25	7	2019	**	44	48	25	7	2019	12	3	29	7
26	7	2019	0	19	20	26	7	2019	12	51	1	7
27	7	2019	1	3	54	27	7	2019	13	41	26	7
28	7	2019	1	52	6	28	7	2019	14	35	25	7
29	7	2019	2	45	4	29	7	2019	15	33	0	7
30	7	2019	3	42	34	30	7	2019	16	33	10	7
31	7	2019	4	43	38	31	7	2019	17	34	13	7
32	7	2019	5	46	26	1	8	2019	18	34	13	7
2	8	2019	6	48	51	2	8	2019	19	31	22	7
3	8	2019	7	49	15	3	8	2019	20	25	27	7
4	8	2019	8	47	17	4	8	2019	21	16	35	7
5	8	2019	9	42	55	5	8	2019	22	5	30	7
6	8	2019	10	36	47	6	8	2019	22	53	12	7

7	8	2019	11	29	41	7	8	2019	23	40	39	7
8	8	2019	12	22	6	8	8	2019	**	44	48	7
9	8	2019	13	14	38	9	8	2019	0	28	20	7
10	8	2019	14	7	23	10	8	2019	1	17	26	7
11	8	2019	14	59	53	11	8	2019	2	7	41	7
12	8	2019	15	51	29	12	8	2019	2	58	44	7
13	8	2019	16	41	16	13	8	2019	3	49	52	7
14	8	2019	17	28	57	14	8	2019	4	40	11	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	8	2019	18	14	15	15	8	2019	5	29	27	7
16	8	2019	18	57	16	16	8	2019	6	17	1	7
17	8	2019	19	38	13	17	8	2019	7	2	59	7
18	8	2019	20	17	47	18	8	2019	7	47	36	7
19	8	2019	20	56	30	19	8	2019	8	31	19	7
20	8	2019	21	35	37	20	8	2019	9	14	49	7
21	8	2019	22	15	54	21	8	2019	9	59	9	7
22	8	2019	22	58	17	22	8	2019	10	44	58	7
23	8	2019	23	43	44	23	8	2019	11	33	7	7
24	8	2019	**	44	48	24	8	2019	12	24	16	7
25	8	2019	0	33	8	25	8	2019	13	18	34	7
26	8	2019	1	26	46	26	8	2019	14	15	55	7
27	8	2019	2	24	49	27	8	2019	15	15	22	7
28	8	2019	3	25	55	28	8	2019	16	15	12	7
29	8	2019	4	28	19	29	8	2019	17	13	48	7
30	8	2019	5	30	13	30	8	2019	18	9	54	7
31	8	2019	6	30	20	31	8	2019	19	3	28	7
32	8	2019	7	28	36	1	9	2019	19	54	51	7
2	9	2019	8	25	5	2	9	2019	20	44	43	7
3	9	2019	9	20	16	3	9	2019	21	33	57	7
4	9	2019	10	14	46	4	9	2019	22	23	17	7
5	9	2019	11	8	49	5	9	2019	23	13	0	7
6	9	2019	12	2	33	6	9	2019	**	44	48	7
7	9	2019	12	55	54	7	9	2019	0	3	44	7
8	9	2019	13	48	8	8	9	2019	0	55	6	7
9	9	2019	14	38	39	9	9	2019	1	46	30	7
10	9	2019	15	26	46	10	9	2019	2	37	12	7
11	9	2019	16	12	31	11	9	2019	3	26	29	7
12	9	2019	16	55	59	12	9	2019	4	14	25	7
13	9	2019	17	37	24	13	9	2019	5	0	45	7
14	9	2019	18	17	19	14	9	2019	5	45	43	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	9	2019	18	56	29	15	9	2019	6	29	41	7
16	9	2019	19	35	19	16	9	2019	7	13	20	7
17	9	2019	20	15	3	17	9	2019	7	57	13	7
18	9	2019	20	56	25	18	9	2019	8	42	21	7
19	9	2019	21	40	15	19	9	2019	9	29	17	7

20	9	2019	22	27	17	20	9	2019	10	18	37	7
21	9	2019	23	18	3	21	9	2019	11	10	42	7
22	9	2019	**	44	48	22	9	2019	12	5	20	7
23	9	2019	0	12	23	23	9	2019	13	2	2	7
24	9	2019	1	10	21	24	9	2019	13	59	50	7
25	9	2019	2	10	21	25	9	2019	14	57	17	7
26	9	2019	3	10	59	26	9	2019	15	53	19	7
27	9	2019	4	11	0	27	9	2019	16	47	16	7
28	9	2019	5	9	42	28	9	2019	17	39	32	7
29	9	2019	6	7	23	29	9	2019	18	30	37	7
30	9	2019	7	4	11	30	9	2019	19	21	10	7
1	10	2019	8	0	32	1	10	2019	20	11	54	7
2	10	2019	8	56	43	2	10	2019	21	3	20	7
3	10	2019	9	52	35	3	10	2019	21	55	18	7
4	10	2019	10	47	49	4	10	2019	22	48	1	7
5	10	2019	11	41	57	5	10	2019	23	40	42	7
6	10	2019	12	34	6	6	10	2019	**	44	48	7
7	10	2019	13	23	43	7	10	2019	0	32	35	7
8	10	2019	14	10	34	8	10	2019	1	22	58	7
9	10	2019	14	54	35	9	10	2019	2	11	32	7
10	10	2019	15	36	26	10	10	2019	2	58	6	7
11	10	2019	16	16	41	11	10	2019	3	43	23	7
12	10	2019	16	55	58	12	10	2019	4	27	38	7
13	10	2019	17	35	2	13	10	2019	5	11	28	7
14	10	2019	18	14	31	14	10	2019	5	55	29	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	10	2019	18	55	35	15	10	2019	6	40	16	7
16	10	2019	19	38	49	16	10	2019	7	26	55	7
17	10	2019	20	24	55	17	10	2019	8	15	43	7
18	10	2019	21	14	20	18	10	2019	9	6	59	7
19	10	2019	22	7	7	19	10	2019	10	0	36	7
20	10	2019	23	2	33	20	10	2019	10	55	52	7
21	10	2019	**	44	48	21	10	2019	11	51	54	7
22	10	2019	0	0	14	22	10	2019	12	47	45	7
23	10	2019	0	58	40	23	10	2019	13	42	20	7
24	10	2019	1	56	49	24	10	2019	14	35	13	7
25	10	2019	2	54	8	25	10	2019	15	26	21	7
26	10	2019	3	50	27	26	10	2019	16	16	31	7
27	10	2019	4	46	34	27	10	2019	17	6	30	7
28	10	2019	5	42	44	28	10	2019	17	56	59	7
29	10	2019	6	39	24	29	10	2019	18	48	35	7
30	10	2019	7	36	36	30	10	2019	19	41	34	7
31	10	2019	8	33	47	31	10	2019	20	35	23	7
1	11	2019	9	30	8	1	11	2019	21	29	47	7
2	11	2019	10	24	51	2	11	2019	22	23	35	7
3	11	2019	11	16	52	3	11	2019	23	15	51	7
4	11	2019	12	5	43	4	11	2019	**	44	48	7
5	11	2019	12	51	23	5	11	2019	0	6	2	7
6	11	2019	13	34	8	6	11	2019	0	53	52	7
7	11	2019	14	14	48	7	11	2019	1	39	32	7

8	11	2019	14	54	15	8	11	2019	2	24	2	7
9	11	2019	15	33	12	9	11	2019	3	7	49	7
10	11	2019	16	12	35	10	11	2019	3	51	41	7
11	11	2019	16	53	6	11	11	2019	4	36	25	7
12	11	2019	17	35	50	12	11	2019	5	22	36	7
13	11	2019	18	21	33	13	11	2019	6	11	14	7
14	11	2019	19	10	39	14	11	2019	7	2	24	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	20	3	7	15	11	2019	7	56	9	7
16	11	2019	20	58	28	16	11	2019	8	51	48	7
17	11	2019	21	55	24	17	11	2019	9	48	4	7
18	11	2019	22	53	7	18	11	2019	10	43	45	7
19	11	2019	23	50	15	19	11	2019	11	37	58	7
20	11	2019	**	44	48	20	11	2019	12	30	4	7
21	11	2019	0	46	13	21	11	2019	13	20	8	7
22	11	2019	1	40	58	22	11	2019	14	8	48	7
23	11	2019	2	35	2	23	11	2019	14	56	46	7
24	11	2019	3	28	58	24	11	2019	15	45	13	7
25	11	2019	4	23	53	25	11	2019	16	35	3	7
26	11	2019	5	19	56	26	11	2019	17	26	44	7
27	11	2019	6	17	4	27	11	2019	18	20	20	7
28	11	2019	7	14	29	28	11	2019	19	15	3	7
29	11	2019	8	10	58	29	11	2019	20	10	13	7
30	11	2019	9	5	30	30	11	2019	21	4	27	7
1	12	2019	9	56	57	1	12	2019	21	56	42	7
2	12	2019	10	44	53	2	12	2019	22	46	24	7
3	12	2019	11	29	29	3	12	2019	23	33	38	7
4	12	2019	12	11	11	4	12	2019	**	44	48	7
5	12	2019	12	50	58	5	12	2019	0	18	37	7
6	12	2019	13	29	51	6	12	2019	1	2	30	7
7	12	2019	14	8	43	7	12	2019	1	46	0	7
8	12	2019	14	48	32	8	12	2019	2	30	1	7
9	12	2019	15	30	8	9	12	2019	3	15	25	7
10	12	2019	16	14	39	10	12	2019	4	2	53	7
11	12	2019	17	2	51	11	12	2019	4	53	26	7
12	12	2019	17	54	57	12	12	2019	5	47	2	7
13	12	2019	18	50	38	13	12	2019	6	43	13	7
14	12	2019	19	48	43	14	12	2019	7	40	56	7

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	47	27	15	12	2019	8	38	24	7
16	12	2019	21	45	43	16	12	2019	9	34	10	7
17	12	2019	22	42	22	17	12	2019	10	27	32	7
18	12	2019	23	37	6	18	12	2019	11	18	11	7
19	12	2019	**	44	48	19	12	2019	12	6	37	7
20	12	2019	0	30	28	20	12	2019	12	53	45	7
21	12	2019	1	23	3	21	12	2019	13	40	30	7



22	12	2019	2	15	39	22	12	2019	14	28	4	7
23	12	2019	3	9	29	23	12	2019	15	17	23	7
24	12	2019	4	4	37	24	12	2019	16	8	50	7
25	12	2019	5	0	54	25	12	2019	17	2	19	7
26	12	2019	5	57	24	26	12	2019	17	56	53	7
27	12	2019	6	52	44	27	12	2019	18	51	41	7
28	12	2019	7	46	0	28	12	2019	19	45	19	7
29	12	2019	8	36	2	29	12	2019	20	36	45	7
30	12	2019	9	22	37	30	12	2019	21	25	37	7
31	12	2019	10	6	1	31	12	2019	22	12	3	7
1	1	2020	10	46	47	1	1	2020	22	56	22	7
2	1	2020	11	25	51	2	1	2020	23	39	49	7
27	12	2018	22	31	3	27	12	2018	10	17	26	10
28	12	2018	23	26	17	28	12	2018	11	6	56	10
29	12	2018	**	44	48	29	12	2018	11	53	31	10
30	12	2018	0	19	20	30	12	2018	12	38	17	10
31	12	2018	1	10	48	31	12	2018	13	22	11	10
32	12	2018	2	1	26	1	1	2019	14	6	17	10
2	1	2019	2	52	18	2	1	2019	14	51	26	10
3	1	2019	3	43	26	3	1	2019	15	37	57	10
4	1	2019	4	34	47	4	1	2019	16	25	58	10
5	1	2019	5	25	53	5	1	2019	17	15	9	10
6	1	2019	6	16	1	6	1	2019	18	4	44	10
7	1	2019	7	4	24	7	1	2019	18	54	19	10
8	1	2019	7	50	53	8	1	2019	19	43	13	10
9	1	2019	8	35	4	9	1	2019	20	31	0	10
10	1	2019	9	17	8	10	1	2019	21	17	40	10
11	1	2019	9	57	26	11	1	2019	22	3	16	10
12	1	2019	10	36	42	12	1	2019	22	48	48	10
13	1	2019	11	15	56	13	1	2019	23	34	50	10
14	1	2019	11	56	1	14	1	2019	**	44	48	10

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	1	2019	12	37	58	15	1	2019	0	22	22	10
16	1	2019	13	22	54	16	1	2019	1	12	11	10
17	1	2019	14	11	42	17	1	2019	2	5	10	10
18	1	2019	15	5	22	18	1	2019	3	1	37	10
19	1	2019	16	4	1	19	1	2019	4	1	44	10
20	1	2019	17	6	36	20	1	2019	5	4	7	10
21	1	2019	18	11	7	21	1	2019	6	6	45	10
22	1	2019	19	15	8	22	1	2019	7	7	30	10
23	1	2019	20	16	49	23	1	2019	8	4	39	10
24	1	2019	21	15	43	24	1	2019	8	57	46	10
25	1	2019	22	11	43	25	1	2019	9	47	30	10
26	1	2019	23	5	28	26	1	2019	10	34	35	10
27	1	2019	23	57	43	27	1	2019	11	20	5	10
28	1	2019	**	44	48	28	1	2019	12	4	53	10
29	1	2019	0	49	3	29	1	2019	12	49	58	10
30	1	2019	1	40	16	30	1	2019	13	36	3	10
31	1	2019	2	31	24	31	1	2019	14	23	20	10
32	1	2019	3	22	15	1	2	2019	15	11	46	10

2	2	2019	4	12	23	2	2	2019	16	1	0	10
3	2	2019	5	1	8	3	2	2019	16	50	15	10
4	2	2019	5	47	55	4	2	2019	17	39	13	10
5	2	2019	6	32	49	5	2	2019	18	27	24	10
6	2	2019	7	15	34	6	2	2019	19	14	29	10
7	2	2019	7	56	31	7	2	2019	20	0	37	10
8	2	2019	8	36	9	8	2	2019	20	46	9	10
9	2	2019	9	15	5	9	2	2019	21	31	27	10
10	2	2019	9	54	9	10	2	2019	22	17	36	10
11	2	2019	10	34	30	11	2	2019	23	5	17	10
12	2	2019	11	16	56	12	2	2019	23	55	16	10
13	2	2019	12	2	33	13	2	2019	**	44	48	10
14	2	2019	12	52	4	14	2	2019	0	48	27	10

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	2	2019	13	46	15	15	2	2019	1	44	36	10
16	2	2019	14	45	5	16	2	2019	2	43	56	10
17	2	2019	15	47	23	17	2	2019	3	44	59	10
18	2	2019	16	51	20	18	2	2019	4	45	54	10
19	2	2019	17	54	55	19	2	2019	5	44	56	10
20	2	2019	18	56	17	20	2	2019	6	41	1	10
21	2	2019	19	55	31	21	2	2019	7	33	37	10
22	2	2019	20	52	25	22	2	2019	8	23	34	10
23	2	2019	21	47	29	23	2	2019	9	11	32	10
24	2	2019	22	41	16	24	2	2019	9	58	25	10
25	2	2019	23	34	0	25	2	2019	10	44	57	10
26	2	2019	**	44	48	26	2	2019	11	31	51	10
27	2	2019	0	26	27	27	2	2019	12	19	38	10
28	2	2019	1	18	10	28	2	2019	13	8	14	10
29	2	2019	2	8	54	1	3	2019	13	57	28	10
2	3	2019	2	58	13	2	3	2019	14	46	51	10
3	3	2019	3	45	40	3	3	2019	15	35	46	10
4	3	2019	4	30	50	4	3	2019	16	24	3	10
5	3	2019	5	14	11	5	3	2019	17	11	29	10
6	3	2019	5	55	41	6	3	2019	17	58	4	10
7	3	2019	6	35	48	7	3	2019	18	43	59	10
8	3	2019	7	15	6	8	3	2019	19	29	42	10
9	3	2019	7	54	13	9	3	2019	20	15	36	10
10	3	2019	8	33	57	10	3	2019	21	2	42	10
11	3	2019	9	15	26	11	3	2019	21	51	33	10
12	3	2019	9	59	21	12	3	2019	22	42	44	10
13	3	2019	10	46	34	13	3	2019	23	36	35	10
14	3	2019	11	37	30	14	3	2019	**	44	48	10

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

			BULAN						BULAN			
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	3	2019	12	32	30	15	3	2019	0	32	49	10
16	3	2019	13	31	11	16	3	2019	1	31	7	10
17	3	2019	14	32	17	17	3	2019	2	29	58	10

18	3	2019	15	34	14	18	3	2019	3	27	58	10
19	3	2019	16	35	41	19	3	2019	4	23	57	10
20	3	2019	17	35	34	20	3	2019	5	17	23	10
21	3	2019	18	33	53	21	3	2019	6	8	20	10
22	3	2019	19	30	43	22	3	2019	6	57	50	10
23	3	2019	20	26	38	23	3	2019	7	46	10	10
24	3	2019	21	21	48	24	3	2019	8	34	14	10
25	3	2019	22	16	21	25	3	2019	9	22	38	10
26	3	2019	23	9	50	26	3	2019	10	11	35	10
27	3	2019	**	44	48	27	3	2019	11	1	10	10
28	3	2019	0	2	43	28	3	2019	11	51	20	10
29	3	2019	0	53	15	29	3	2019	12	41	28	10
30	3	2019	1	41	54	30	3	2019	13	31	7	10
31	3	2019	2	28	12	31	3	2019	14	19	47	10
32	3	2019	3	12	0	1	4	2019	15	7	29	10
2	4	2019	3	54	1	2	4	2019	15	54	19	10
3	4	2019	4	34	28	3	4	2019	16	40	29	10
4	4	2019	5	14	2	4	4	2019	17	26	27	10
5	4	2019	5	53	22	5	4	2019	18	12	45	10
6	4	2019	6	33	12	6	4	2019	18	59	49	10
7	4	2019	7	14	19	7	4	2019	19	48	38	10
8	4	2019	7	57	46	8	4	2019	20	39	34	10
9	4	2019	8	44	9	9	4	2019	21	32	51	10
10	4	2019	9	34	0	10	4	2019	22	28	21	10
11	4	2019	10	27	18	11	4	2019	23	25	9	10
12	4	2019	11	23	44	12	4	2019	**	44	48	10
13	4	2019	12	22	32	13	4	2019	0	22	39	10
14	4	2019	13	22	19	14	4	2019	1	19	19	10

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN			BULAN			o
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	
15	4	2019	14	21	52	15	4	2019	2	14	6	10
16	4	2019	15	20	29	16	4	2019	3	6	36	10
17	4	2019	16	17	48	17	4	2019	3	56	54	10
18	4	2019	17	14	14	18	4	2019	4	45	29	10
19	4	2019	18	10	14	19	4	2019	5	33	26	10
20	4	2019	19	5	54	20	4	2019	6	21	30	10
21	4	2019	20	1	37	21	4	2019	7	10	3	10
22	4	2019	20	57	3	22	4	2019	7	59	38	10
23	4	2019	21	51	23	23	4	2019	8	50	9	10
24	4	2019	22	44	23	24	4	2019	9	41	17	10
25	4	2019	23	35	9	25	4	2019	10	32	43	10
26	4	2019	**	44	48	26	4	2019	11	23	36	10
27	4	2019	0	23	10	27	4	2019	12	13	25	10
28	4	2019	1	8	25	28	4	2019	13	1	48	10
29	4	2019	1	50	59	29	4	2019	13	48	56	10
30	4	2019	2	31	52	30	4	2019	14	35	15	10
31	4	2019	3	11	31	1	5	2019	15	21	9	10
2	5	2019	3	50	44	2	5	2019	16	7	16	10
3	5	2019	4	30	21	3	5	2019	16	54	20	10
4	5	2019	5	11	12	4	5	2019	17	42	52	10
5	5	2019	5	54	2	5	5	2019	18	33	42	10

6	5	2019	6	40	2	6	5	2019	19	27	11	10
7	5	2019	7	29	32	7	5	2019	20	23	5	10
8	5	2019	8	22	44	8	5	2019	21	20	42	10
9	5	2019	9	19	7	9	5	2019	22	18	47	10
10	5	2019	10	17	33	10	5	2019	23	15	38	10
11	5	2019	11	16	42	11	5	2019	**	44	48	10
12	5	2019	12	15	30	12	5	2019	0	10	28	10
13	5	2019	13	13	3	13	5	2019	1	2	35	10
14	5	2019	14	9	12	14	5	2019	1	52	9	10

TARIKH LATITUD			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	5	2019	15	4	5	15	5	2019	2	39	44	10
16	5	2019	15	58	31	16	5	2019	3	26	5	10
17	5	2019	16	53	4	17	5	2019	4	12	33	10
18	5	2019	17	48	3	18	5	2019	4	59	45	10
19	5	2019	18	43	24	19	5	2019	5	48	17	10
20	5	2019	19	38	39	20	5	2019	6	38	28	10
21	5	2019	20	32	53	21	5	2019	7	29	48	10
22	5	2019	21	25	31	22	5	2019	8	21	45	10
23	5	2019	22	15	36	23	5	2019	9	13	46	10
24	5	2019	23	2	42	24	5	2019	10	4	51	10
25	5	2019	23	46	53	25	5	2019	10	54	28	10
26	5	2019	**	44	48	26	5	2019	11	42	23	10
27	5	2019	0	28	14	27	5	2019	12	28	54	10
28	5	2019	1	8	7	28	5	2019	13	14	41	10
29	5	2019	1	47	6	29	5	2019	14	0	19	10
30	5	2019	2	26	5	30	5	2019	14	46	35	10
31	5	2019	3	6	1	31	5	2019	15	34	19	10
32	5	2019	3	47	53	1	6	2019	16	24	10	10
2	6	2019	4	32	31	2	6	2019	17	16	56	10
3	6	2019	5	21	4	3	6	2019	18	12	48	10
4	6	2019	6	13	48	4	6	2019	19	11	10	10
5	6	2019	7	10	25	5	6	2019	20	10	46	10
6	6	2019	8	9	52	6	6	2019	21	9	51	10
7	6	2019	9	10	23	7	6	2019	22	6	32	10
8	6	2019	10	10	19	8	6	2019	23	0	18	10
9	6	2019	11	8	45	9	6	2019	23	50	48	10
10	6	2019	12	5	9	10	6	2019	**	44	48	10
11	6	2019	12	59	47	11	6	2019	0	38	23	10
12	6	2019	13	53	12	12	6	2019	1	24	21	10
13	6	2019	14	46	16	13	6	2019	2	9	25	10
14	6	2019	15	39	42	14	6	2019	2	55	2	10

TARIKH LATITUD			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	6	2019	16	33	44	15	6	2019	3	41	49	10
16	6	2019	17	28	16	16	6	2019	4	30	17	10
17	6	2019	18	22	42	17	6	2019	5	20	33	10
18	6	2019	19	15	52	18	6	2019	6	12	8	10

19	6	2019	20	7	13	19	6	2019	7	4	7	10
20	6	2019	20	55	55	20	6	2019	7	55	56	10
21	6	2019	21	41	36	21	6	2019	8	46	32	10
22	6	2019	22	24	26	22	6	2019	9	35	30	10
23	6	2019	23	5	0	23	6	2019	10	22	47	10
24	6	2019	23	43	48	24	6	2019	11	8	38	10
25	6	2019	**	44	48	25	6	2019	11	53	45	10
26	6	2019	0	22	6	26	6	2019	12	39	5	10
27	6	2019	1	0	54	27	6	2019	13	25	23	10
28	6	2019	1	41	9	28	6	2019	14	13	35	10
29	6	2019	2	23	54	29	6	2019	15	4	22	10
30	6	2019	3	10	1	30	6	2019	15	58	30	10
31	6	2019	4	0	45	1	7	2019	16	56	1	10
2	7	2019	4	56	9	2	7	2019	17	56	2	10
3	7	2019	5	55	35	3	7	2019	18	56	52	10
4	7	2019	6	57	31	4	7	2019	19	56	31	10
5	7	2019	7	59	48	5	7	2019	20	53	7	10
6	7	2019	9	0	38	6	7	2019	21	46	20	10
7	7	2019	9	59	20	7	7	2019	22	36	10	10
8	7	2019	10	55	36	8	7	2019	23	23	22	10
9	7	2019	11	49	56	9	7	2019	**	44	48	10
10	7	2019	12	43	10	10	7	2019	0	8	52	10
11	7	2019	13	35	54	11	7	2019	0	54	4	10
12	7	2019	14	28	52	12	7	2019	1	39	38	10
13	7	2019	15	22	21	13	7	2019	2	26	45	10
14	7	2019	16	15	59	14	7	2019	3	15	33	10

TARIKH WAKTU TERBIT TARIKH WAKTU TERBENAM  
LATITUD

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	7	2019	17	9	6	15	7	2019	4	5	59	10
16	7	2019	18	0	37	16	7	2019	4	57	25	10
17	7	2019	18	50	1	17	7	2019	5	48	54	10
18	7	2019	19	36	50	18	7	2019	6	39	50	10
19	7	2019	20	20	45	19	7	2019	7	29	26	10
20	7	2019	21	2	10	20	7	2019	8	17	24	10
21	7	2019	21	41	37	21	7	2019	9	3	48	10
22	7	2019	22	19	43	22	7	2019	9	48	58	10
23	7	2019	22	57	47	23	7	2019	10	33	39	10
24	7	2019	23	36	34	24	7	2019	11	18	48	10
25	7	2019	**	44	48	25	7	2019	12	5	12	10
26	7	2019	0	17	5	26	7	2019	12	53	45	10
27	7	2019	1	0	40	27	7	2019	13	45	6	10
28	7	2019	1	47	58	28	7	2019	14	39	54	10
29	7	2019	2	40	15	29	7	2019	15	38	3	10
30	7	2019	3	37	22	30	7	2019	16	38	26	10
31	7	2019	4	38	26	31	7	2019	17	39	16	10
32	7	2019	5	41	40	1	8	2019	18	38	38	10
2	8	2019	6	44	55	2	8	2019	19	34	49	10
3	8	2019	7	46	23	3	8	2019	20	27	44	10
4	8	2019	8	45	39	4	8	2019	21	17	37	10
5	8	2019	9	42	33	5	8	2019	22	5	15	10
6	8	2019	10	37	40	6	8	2019	22	51	44	10

7	8	2019	11	31	45	7	8	2019	23	38	3	10
8	8	2019	12	25	15	8	8	2019	**	44	48	10
9	8	2019	13	18	40	9	8	2019	0	24	42	10
10	8	2019	14	12	7	10	8	2019	1	13	0	10
11	8	2019	15	5	2	11	8	2019	2	2	42	10
12	8	2019	15	56	45	12	8	2019	2	53	29	10
13	8	2019	16	46	20	13	8	2019	3	44	41	10
14	8	2019	17	33	33	14	8	2019	4	35	20	10

TARIKH LATITUD			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	8	2019	18	18	11	15	8	2019	5	25	10	10
16	8	2019	19	0	23	16	8	2019	6	13	29	10
17	8	2019	19	40	24	17	8	2019	7	0	19	10
18	8	2019	20	18	59	18	8	2019	7	45	54	10
19	8	2019	20	56	42	19	8	2019	8	30	37	10
20	8	2019	21	34	46	20	8	2019	9	15	10	10
21	8	2019	22	14	2	21	8	2019	10	0	31	10
22	8	2019	22	55	25	22	8	2019	10	47	21	10
23	8	2019	23	39	59	23	8	2019	11	36	28	10
24	8	2019	**	44	48	24	8	2019	12	28	28	10
25	8	2019	0	28	34	25	8	2019	13	23	25	10
26	8	2019	1	21	41	26	8	2019	14	21	8	10
27	8	2019	2	19	33	27	8	2019	15	20	35	10
28	8	2019	3	20	52	28	8	2019	16	20	0	10
29	8	2019	4	23	53	29	8	2019	17	17	47	10
30	8	2019	5	26	46	30	8	2019	18	12	48	10
31	8	2019	6	28	4	31	8	2019	19	5	6	10
32	8	2019	7	27	39	1	9	2019	19	55	11	10
2	9	2019	8	25	26	2	9	2019	20	43	44	10
3	9	2019	9	21	54	3	9	2019	21	31	45	10
4	9	2019	10	17	33	4	9	2019	22	19	59	10
5	9	2019	11	12	36	5	9	2019	23	8	48	10
6	9	2019	12	7	8	6	9	2019	**	44	48	10
7	9	2019	13	0	59	7	9	2019	0	51	1	10
8	9	2019	13	53	26	8	9	2019	0	49	52	10
9	9	2019	14	43	51	9	9	2019	1	41	13	10
10	9	2019	15	31	34	10	9	2019	2	32	11	10
11	9	2019	16	16	41	11	9	2019	3	21	59	10
12	9	2019	16	59	22	12	9	2019	4	10	38	10
13	9	2019	17	39	53	13	9	2019	4	57	49	10
14	9	2019	18	18	49	14	9	2019	5	43	44	10

TARIKH LATITUD			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	9	2019	18	56	59	15	9	2019	6	28	41	10
16	9	2019	19	34	47	16	9	2019	7	13	22	10
17	9	2019	20	13	29	17	9	2019	7	58	18	10
18	9	2019	20	53	51	18	9	2019	8	44	27	10
19	9	2019	21	36	44	19	9	2019	9	32	21	10

20	9	2019	22	22	57	20	9	2019	10	22	34	10
21	9	2019	23	13	6	21	9	2019	11	15	23	10
22	9	2019	**	44	48	22	9	2019	12	10	30	10
23	9	2019	0	7	5	23	9	2019	13	7	22	10
24	9	2019	1	5	5	24	9	2019	14	4	55	10
25	9	2019	2	5	33	25	9	2019	15	1	44	10
26	9	2019	3	6	59	26	9	2019	15	56	50	10
27	9	2019	4	8	5	27	9	2019	16	49	36	10
28	9	2019	5	8	3	28	9	2019	17	40	32	10
29	9	2019	6	7	4	29	9	2019	18	30	17	10
30	9	2019	7	5	13	30	9	2019	19	19	31	10
1	10	2019	8	2	49	1	10	2019	20	9	3	10
2	10	2019	9	0	8	2	10	2019	20	59	26	10
3	10	2019	9	56	56	3	10	2019	21	50	36	10
4	10	2019	10	52	49	4	10	2019	22	42	49	10
5	10	2019	11	47	16	5	10	2019	23	35	20	10
6	10	2019	12	39	25	6	10	2019	**	44	48	10
7	10	2019	13	28	44	7	10	2019	0	27	23	10
8	10	2019	14	15	1	8	10	2019	1	18	13	10
9	10	2019	14	58	17	9	10	2019	2	7	27	10
10	10	2019	15	39	14	10	10	2019	2	54	50	10
11	10	2019	16	18	31	11	10	2019	3	41	4	10
12	10	2019	16	56	47	12	10	2019	4	26	19	10
13	10	2019	17	34	48	13	10	2019	5	11	11	10
14	10	2019	18	13	14	14	10	2019	5	56	16	10

TARIKH                      WAKTU TERBIT                      TARIKH                      WAKTU TERBENAM  
LATITUD

H	B	TAHUN	BULAN			H	B	TAHUN	BULAN			o
			j	m	s				j	m	s	
15	10	2019	18	53	18	15	10	2019	6	42	4	10
16	10	2019	19	35	32	16	10	2019	7	29	43	10
17	10	2019	20	20	46	17	10	2019	8	19	28	10
18	10	2019	21	9	29	18	10	2019	9	11	32	10
19	10	2019	22	1	50	19	10	2019	10	5	43	10
20	10	2019	22	57	10	20	10	2019	11	1	15	10
21	10	2019	23	55	6	21	10	2019	11	57	11	10
22	10	2019	**	44	48	22	10	2019	12	52	33	10
23	10	2019	0	54	16	23	10	2019	13	46	19	10
24	10	2019	1	53	22	24	10	2019	14	38	8	10
25	10	2019	2	51	50	25	10	2019	15	28	2	10
26	10	2019	3	49	26	26	10	2019	16	16	53	10
27	10	2019	4	46	53	27	10	2019	17	5	31	10
28	10	2019	5	44	23	28	10	2019	17	54	43	10
29	10	2019	6	42	18	29	10	2019	18	45	9	10
30	10	2019	7	40	34	30	10	2019	19	37	10	10
31	10	2019	8	38	35	31	10	2019	20	30	19	10
1	11	2019	9	35	26	1	11	2019	21	24	22	10
2	11	2019	10	30	17	2	11	2019	22	18	12	10
3	11	2019	11	22	7	3	11	2019	23	10	48	10
4	11	2019	12	10	28	4	11	2019	23	59	36	10
5	11	2019	12	55	26	5	11	2019	**	44	48	10
6	11	2019	13	37	20	6	11	2019	0	50	15	10
7	11	2019	14	17	3	7	11	2019	1	36	49	10

8	11	2019	14	55	28	8	11	2019	2	22	18	10
9	11	2019	15	33	23	9	11	2019	3	7	7	10
10	11	2019	16	11	42	10	11	2019	3	52	3	10
11	11	2019	16	51	9	11	11	2019	4	37	51	10
12	11	2019	17	32	51	12	11	2019	5	25	6	10
13	11	2019	18	17	37	13	11	2019	6	14	43	10
14	11	2019	19	5	58	14	11	2019	7	6	44	10

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN						
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	11	2019	19	57	53	15	11	2019	8	1	10	10
16	11	2019	20	53	1	16	11	2019	8	57	11	10
17	11	2019	21	50	8	17	11	2019	9	53	29	10
18	11	2019	22	48	23	18	11	2019	10	48	47	10
19	11	2019	23	46	21	19	11	2019	11	42	18	10
20	11	2019	**	44	48	20	11	2019	12	33	25	10
21	11	2019	0	43	27	21	11	2019	13	22	20	10
22	11	2019	1	39	25	22	11	2019	14	9	45	10
23	11	2019	2	34	46	23	11	2019	14	56	25	10
24	11	2019	3	30	0	24	11	2019	15	43	34	10
25	11	2019	4	26	11	25	11	2019	16	32	11	10
26	11	2019	5	23	24	26	11	2019	17	22	47	10
27	11	2019	6	21	30	27	11	2019	18	15	32	10
28	11	2019	7	19	36	28	11	2019	19	9	43	10
29	11	2019	8	16	25	29	11	2019	20	4	44	10
30	11	2019	9	10	55	30	11	2019	20	59	10	10
1	12	2019	10	2	0	1	12	2019	21	51	55	10
2	12	2019	10	49	18	2	12	2019	22	42	22	10
3	12	2019	11	33	5	3	12	2019	23	30	27	10
4	12	2019	12	13	52	4	12	2019	**	44	48	10
5	12	2019	12	52	38	5	12	2019	0	16	27	10
6	12	2019	13	30	29	6	12	2019	1	1	21	10
7	12	2019	14	8	17	7	12	2019	1	45	54	10
8	12	2019	14	47	2	8	12	2019	2	30	59	10
9	12	2019	15	27	35	9	12	2019	3	17	28	10
10	12	2019	16	11	6	10	12	2019	4	5	58	10
11	12	2019	16	58	26	11	12	2019	4	57	28	10
12	12	2019	17	49	52	12	12	2019	5	51	51	10
13	12	2019	18	45	12	13	12	2019	6	48	32	10
14	12	2019	19	43	19	14	12	2019	7	46	24	10

TARIKH			WAKTU TERBIT			TARIKH			WAKTU TERBENAM			
LATITUD			BULAN			BULAN						
H	B	TAHUN	j	m	s	H	B	TAHUN	j	m	s	o
15	12	2019	20	42	28	15	12	2019	8	43	38	10
16	12	2019	21	41	31	16	12	2019	9	38	47	10
17	12	2019	22	39	11	17	12	2019	10	31	14	10
18	12	2019	23	35	6	18	12	2019	11	20	46	10
19	12	2019	**	44	48	19	12	2019	12	7	59	10
20	12	2019	0	29	45	20	12	2019	12	53	51	10
21	12	2019	1	23	36	21	12	2019	13	39	20	10



22	12	2019	2	17	28	22	12	2019	14	25	40	10
23	12	2019	3	12	28	23	12	2019	15	13	52	10
24	12	2019	4	8	39	24	12	2019	16	4	22	10
25	12	2019	5	5	45	25	12	2019	16	57	11	10
26	12	2019	6	2	45	26	12	2019	17	51	25	10
27	12	2019	6	58	14	27	12	2019	18	46	15	10
28	12	2019	7	51	16	28	12	2019	19	40	16	10
29	12	2019	8	40	47	29	12	2019	20	32	21	10
30	12	2019	9	26	37	30	12	2019	21	22	3	10
31	12	2019	10	9	7	31	12	2019	22	9	25	10
1	1	2020	10	48	54	1	1	2020	22	54	45	10
2	1	2020	11	26	57	2	1	2020	23	39	14	10