

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
JANEIRO

d	h	m		d	h	m		d	h	m		d	h	m	
0	2	44	II Sb I	7	22	32	I Oc R	15	21	42	I Tr E	23	22	58	IV Tr I
	2	51	II Tr I												
	5	24	II Sb E	8	17	14	I Sb I	16	2	10	II Ec D	24	14	5	IV Tr E
	5	32	II Tr E		17	26	I Tr I		5	31	II Oc R		2	9	III Oc R
	18	11	I Ec D		19	28	I Sb E		16	28	I Ec D		15	31	I Sb I
	20	30	I Oc R		19	41	I Tr E		17	18	III Ec D		15	59	I Tr I
					23	36	II Ec D		19	4	I Oc R		17	45	I Sb E
1	15	20	I Sb I						21	40	III Oc R		18	14	I Tr E
	15	25	I Tr I	9	2	41	II Oc R						23	51	II Sb I
	17	34	I Sb E		13	19	III Ec D	17	13	37	I Sb I				
	17	39	I Tr E		14	34	I Ec D		13	58	I Tr I	25	0	49	II Tr I
	21	2	II Ec D		17	2	I Oc R		15	51	I Sb E		2	32	II Sb E
	23	51	II Oc R		17	11	III Oc R		16	13	I Tr E		3	31	II Tr E
									21	15	II Sb I		12	51	I Ec D
2	9	20	III Ec D	10	11	43	I Sb I		21	59	II Tr I		15	36	I Oc R
	12	39	III Oc R		11	57	I Tr I		23	56	II Sb E				
	12	39	I Ec D		13	57	I Sb E					26	9	59	I Sb I
	15	0	I Oc R		14	11	I Tr E	18	0	41	II Tr E		10	29	I Tr I
					18	39	II Sb I		10	57	I Ec D		12	13	I Sb E
3	9	49	I Sb I		19	8	II Tr I		13	34	I Oc R		12	44	I Tr E
	9	56	I Tr I		21	19	II Sb E						18	2	II Ec D
	12	3	I Sb E		21	49	II Tr E	19	8	5	I Sb I		21	45	II Oc R
	12	10	I Tr E						8	28	I Tr I				
	16	3	II Sb I	11	9	2	I Ec D		10	19	I Sb E	27	7	19	I Ec D
	16	17	II Tr I		11	33	I Oc R		10	43	I Tr E		10	6	I Oc R
	18	43	II Sb E						15	28	II Ec D		11	2	III Sb I
	18	58	II Tr E	12	6	11	I Sb I		18	56	II Oc R		13	8	III Tr I
					6	27	I Tr I						14	0	III Sb E
					8	25	I Sb E	20	5	25	I Ec D		16	10	III Tr E
4	7	8	I Ec D		8	42	I Tr E		7	4	III Sb I				
	9	31	I Oc R		12	53	II Ec D		8	5	I Oc R	28	4	28	I Sb I
					16	6	II Oc R		8	41	III Tr I		4	59	I Tr I
5	4	17	I Sb I						10	0	III Sb E		6	42	I Sb E
	4	26	I Tr I	13	3	4	III Sb I		11	41	III Tr E		7	14	I Tr E
	6	31	I Sb E		3	31	I Ec D						13	9	II Sb I
	6	40	I Tr E		4	12	III Tr I	21	2	34	I Sb I		14	13	II Tr I
	10	19	II Ec D		6	0	III Sb E		2	58	I Tr I		15	49	II Sb E
	13	16	II Oc R		6	3	I Oc R		4	48	I Sb E		16	56	II Tr E
	23	6	III Sb I		7	11	III Tr E		5	13	I Tr E				
	23	44	III Tr I						10	33	II Sb I	29	1	48	I Ec D
6	1	37	I Ec D	14	0	40	I Sb I		11	24	II Tr I		4	36	I Oc R
	2	0	III Sb E		0	57	I Tr I		13	13	II Sb E		22	56	I Sb I
	2	41	III Tr E		2	54	I Sb E		14	6	II Tr E		23	29	I Tr I
	4	1	I Oc R		3	12	I Tr E		23	54	I Ec D				
	22	46	I Sb I		7	57	II Sb I					30	1	10	I Sb E
	22	56	I Tr I		8	33	II Tr I	22	2	35	I Oc R		1	44	I Tr E
					10	37	II Sb E		21	2	I Sb I		7	20	II Ec D
7	0	45	IV Sb I		11	15	II Tr E		21	29	I Tr I		11	10	II Oc R
	1	0	I Sb E		21	60	I Ec D		23	16	I Sb E		20	16	I Ec D
	1	11	I Tr E						23	43	I Tr E		23	6	I Oc R
	2	22	IV Tr I	15	0	34	I Oc R								
	2	58	IV Sb E		11	33	IV Ec D	23	4	45	II Ec D	31	1	14	III Ec D
	4	47	IV Tr E		13	56	IV Ec R		8	21	II Oc R		6	37	III Oc R
	5	21	II Sb I		14	31	IV Oc D		18	22	I Ec D		17	24	I Sb I
	5	42	II Tr I		17	10	IV Oc R		18	42	IV Sb I		18	0	I Tr I
	8	1	II Sb E		19	8	I Sb I		21	5	I Oc R		19	39	I Sb E
	8	23	II Tr E		19	28	I Tr I		21	9	IV Sb E		20	14	I Tr E
	20	5	I Ec D		21	22	I Sb E		21	16	III Ec D				

I JAN 16

 $x_1 = -1.27; y_1 = -0.20$

II JAN 16

 $x_1 = -1.38; y_1 = -0.36$

III JAN 16

 $x_1 = -1.57; y_1 = -0.54$

IV JAN 15

 $x_1 = -1.75; y_1 = -0.79$ $x_2 = -0.78; y_2 = -0.79$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
FEVEREIRO

d	h	m		d	h	m		d	h	m		d	h	m	
1	2	27	II Sb I	8	9	10	II Tr E	15	18	33	I Ec D	22	23	37	I Oc R
	3	38	II Tr I		16	39	I Ec D		21	37	I Oc R				
	5	7	II Sb E		19	37	I Oc R					23	17	34	I Sb I
	5	30	IV Ec D					16	15	41	I Sb I		18	29	I Tr I
	6	21	II Tr E	9	12	39	IV Sb I		16	30	I Tr I		19	49	I Sb E
	8	6	IV Ec R		13	47	I Sb I		17	55	I Sb E		20	44	I Tr E
	11	3	IV Oc D		14	30	I Tr I		18	45	I Tr E				
	14	2	IV Oc R		15	18	IV Sb E					24	4	21	II Ec D
	14	45	I Ec D		16	1	I Sb E	17	1	46	II Ec D		8	58	II Oc R
	17	37	I Oc R		16	45	I Tr E		6	11	II Oc R		14	55	I Ec D
					19	24	IV Tr I		13	1	I Ec D		18	7	I Oc R
2	11	53	I Sb I		22	29	IV Tr E		16	7	I Oc R				
	12	30	I Tr I		23	11	II Ec D		22	58	III Sb I	25	2	56	III Sb I
	14	7	I Sb E						23	27	IV Ec D		5	58	III Sb E
	14	45	I Tr E	10	3	23	II Oc R						6	43	III Tr I
	20	37	II Ec D		11	7	I Ec D	18	1	58	III Sb E		9	52	III Tr E
					14	7	I Oc R		2	15	IV Ec R		12	3	I Sb I
3	0	34	II Oc R		19	0	III Sb I		2	22	III Tr I		12	59	I Tr I
	9	13	I Ec D		21	59	III Sb E		5	29	III Tr E		14	17	I Sb E
	12	7	I Oc R		21	59	III Tr I		7	19	IV Oc D		15	14	I Tr E
	15	2	III Sb I						10	9	I Sb I		23	30	II Sb I
	17	35	III Tr I	11	1	5	III Tr E		10	36	IV Oc R				
	18	0	III Sb E		8	15	I Sb I		11	0	I Tr I	26	1	23	II Tr I
	20	39	III Tr E		9	0	I Tr I		12	23	I Sb E		2	11	II Sb E
					10	30	I Sb E		13	15	I Tr E		4	7	II Tr E
4	6	21	I Sb I		11	15	I Tr E		20	55	II Sb I		6	37	IV Sb I
	7	0	I Tr I		18	20	II Sb I		22	37	II Tr I		9	23	I Ec D
	8	36	I Sb E		19	50	II Tr I		23	36	II Sb E		9	28	IV Sb E
	9	15	I Tr E		21	1	II Sb E						12	36	I Oc R
	15	44	II Sb I		22	33	II Tr E	19	1	21	II Tr E		15	32	IV Tr I
	17	2	II Tr I						7	29	I Ec D		18	53	IV Tr E
	18	25	II Sb E	12	5	36	I Ec D		10	37	I Oc R				
	19	45	II Tr E		8	37	I Oc R					27	6	31	I Sb I
								20	4	37	I Sb I		7	29	I Tr I
5	3	42	I Ec D	13	2	44	I Sb I		5	30	I Tr I		8	46	I Sb E
	6	37	I Oc R		3	30	I Tr I		6	52	I Sb E		9	44	I Tr E
					4	58	I Sb E		7	45	I Tr E		17	39	II Ec D
					5	45	I Tr E		15	4	II Ec D		22	22	II Oc R
6	0	50	I Sb I		12	29	II Ec D		19	35	II Oc R				
	1	30	I Tr I		16	47	II Oc R					28	3	52	I Ec D
	3	4	I Sb E					21	1	58	I Ec D		7	6	I Oc R
	3	45	I Tr E	14	0	4	I Ec D		5	7	I Oc R		17	9	III Ec D
	9	54	II Ec D		3	7	I Oc R		13	10	III Ec D		20	12	III Ec R
	13	59	II Oc R		9	11	III Ec D		16	12	III Ec R		21	6	III Oc D
	22	10	I Ec D		12	12	III Ec R		16	45	III Oc D				
					12	23	III Oc D		19	54	III Oc R	29	0	16	III Oc R
7	1	7	I Oc R		15	30	III Oc R		23	6	I Sb I		1	0	I Sb I
	5	12	III Ec D		21	12	I Sb I		23	59	I Tr I		1	59	I Tr I
	11	4	III Oc R		22	0	I Tr I						3	14	I Sb E
	19	18	I Sb I		23	27	I Sb E	22	1	20	I Sb E		4	14	I Tr E
	20	0	I Tr I						2	15	I Tr E		12	47	II Sb I
	21	33	I Sb E	15	0	15	I Tr E		10	12	II Sb I		14	45	II Tr I
	22	15	I Tr E		7	37	II Sb I		12	0	II Tr I		15	28	II Sb E
					9	14	II Tr I		12	54	II Sb E		17	29	II Tr E
8	5	2	II Sb I		10	18	II Sb E		14	44	II Tr E		22	20	I Ec D
	6	26	II Tr I		11	57	II Tr E		20	26	I Ec D				
	7	43	II Sb E												

I FEB 15

 $x_1 = -1.68; y_1 = -0.18$

II FEB 17

 $x_1 = -2.08; y_1 = -0.32$

III FEB 14

 $x_1 = -2.59; y_1 = -0.48$
 $x_2 = -0.95; y_2 = -0.49$

IV FEB 17/18

 $x_1 = -3.88; y_1 = -0.68$
 $x_2 = -2.74; y_2 = -0.69$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
MARÇO

d	h	m		d	h	m		d	h	m		d	h	m	
1	1	36	I Oc R	9	0	42	I Tr E	17	0	1	I Oc R	24	21	52	I Sb E
19	28		I Sb I	9	31	II Ec D		14	52	III Sb I		21	56	III Sb E	
20	28		I Tr I	14	30	II Oc R		17	44	I Sb I		23	6	I Tr E	
21	43		I Sb E	18	42	I Ec D		17	56	III Sb E		23	47	III Tr I	
22	43		I Tr E	22	3	I Oc R		18	54	I Tr I					
								19	35	III Tr I		25	3	0	III Tr E
2	6	56	II Ec D	10	10	54 III Sb I		19	59	I Sb E		9	48	II Sb I	
11	44		II Oc R	13	57	III Sb E		21	9	I Tr E		12	12	II Tr I	
16	48		I Ec D	15	20	III Tr I		22	47	III Tr E		12	29	II Sb E	
20	5		I Oc R	15	50	I Sb I						14	57	II Tr E	
				16	56	I Tr I		18	7	13 II Sb I		16	57	I Ec D	
3	6	55	III Sb I	18	5	I Sb E		9	32	II Tr I		20	27	I Oc R	
9	57		III Sb E	18	32	III Tr E		9	55	II Sb E					
11	3		III Tr I	19	11	I Tr E		12	17	II Tr E		26	14	6	I Sb I
13	57		I Sb I					15	4	I Ec D		15	20	I Tr I	
14	12		III Tr E	11	4	39 II Sb I		18	30	I Oc R		16	21	I Sb E	
14	58		I Tr I	6	51	II Tr I						17	35	I Tr E	
16	11		I Sb E	7	20	II Sb E		19	12	12 I Sb I					
17	13		I Tr E	9	35	II Tr E		13	23	I Tr I		27	3	59	II Ec D
				13	10	I Ec D		14	27	I Sb E		9	18	II Oc R	
4	2	5	II Sb I	16	33	I Oc R		15	38	I Tr E		11	25	I Ec D	
4	7		II Tr I									14	56	I Oc R	
4	46		II Sb E	12	10	19 I Sb I		20	1	24 II Ec D					
6	51		II Tr E	11	26	I Tr I		6	36	II Oc R		28	8	35	I Sb I
11	17		I Ec D	12	33	I Sb E		9	32	I Ec D		8	60	III Ec D	
14	35		I Oc R	13	41	I Tr E		12	59	I Oc R		9	49	I Tr I	
				22	49	II Ec D						10	49	I Sb E	
5	8	25	I Sb I					21	5	2 III Ec D		12	4	I Tr E	
9	27		I Tr I	13	3	52 II Oc R		6	41	I Sb I		12	7	III Ec R	
10	39		I Sb E	7	39	I Ec D		7	52	I Tr I		14	0	III Oc D	
11	43		I Tr E	11	2	I Oc R		8	8	III Ec R		17	16	III Oc R	
17	24		IV Ec D					8	55	I Sb E		23	5	II Sb I	
20	14		II Ec D	14	0	35 IV Sb I		9	51	III Oc D					
20	24		IV Ec R	1	4	III Ec D		10	8	I Tr E		29	1	32 II Tr I	
				3	36	IV Sb E		13	5	III Oc R		1	46	II Sb E	
6	1	8	II Oc R	4	9	III Ec R		20	31	II Sb I		4	16	II Tr E	
3	13		IV Oc D	4	47	I Sb I		22	52	II Tr I		5	54	I Ec D	
5	45		I Ec D	5	38	III Oc D		23	12	II Sb E		9	25	I Oc R	
6	45		IV Oc R	5	55	I Tr I									
9	4		I Oc R	7	2	I Sb E		22	1	37 II Tr E		30	3	3 I Sb I	
21	7		III Ec D	8	10	I Tr E		4	0	I Ec D		4	18	I Tr I	
				8	52	III Oc R		7	28	I Oc R		5	18	I Sb E	
7	0	11	III Ec R	11	13	IV Tr I		11	22	IV Ec D		6	33	I Tr E	
1	23		III Oc D	14	47	IV Tr E		14	32	IV Ec R		17	17	II Ec D	
2	53		I Sb I	17	56	II Sb I		22	37	IV Oc D		18	33	IV Sb I	
3	57		I Tr I	20	12	II Tr I						21	45	IV Sb E	
4	35		III Oc R	20	38	II Sb E		23	1	9 I Sb I		22	38	II Oc R	
5	8		I Sb E	22	56	II Tr E		2	21	IV Oc R					
6	12		I Tr E					2	21	I Tr I		31	0	22 I Ec D	
15	22		II Sb I	15	2	7 I Ec D		3	24	I Sb E		3	53	I Oc R	
17	29		II Tr I	5	32	I Oc R		4	37	I Tr E		6	20	IV Tr I	
18	3		II Sb E	23	16	I Sb I		14	41	II Ec D		10	5	IV Tr E	
20	13		II Tr E					19	57	II Oc R		21	31	I Sb I	
				16	0	24 I Tr I		22	29	I Ec D		22	47	I Tr I	
8	0	13	I Ec D	1	30	I Sb E						22	50	III Sb I	
3	34		I Oc R	2	40	I Tr E		24	1	58 I Oc R		23	46	I Sb E	
21	22		I Sb I	12	6	II Ec D		18	51	III Sb I					
22	27		I Tr I	17	14	II Oc R		19	38	I Sb I					
23	36		I Sb E	20	35	I Ec D		20	51	I Tr I					

I MAR 16

 $x_1 = -1.97; y_1 = -0.16$

II MAR 16

 $x_1 = -2.54; y_1 = -0.28$

III MAR 14

 $x_1 = -3.35; y_1 = -0.43$ $x_2 = -1.69; y_2 = -0.44$

IV MAR 22

 $x_1 = -5.36; y_1 = -0.58$ $x_2 = -4.08; y_2 = -0.59$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
ABRIL

d	h	m		d	h	m		d	h	m		d	h	m	
1	1	2	I Tr E	8	14	55	II Sb I	15	22	47	II Tr E	23	4	4	I Oc R
	1	55	III Sb E		17	22	IV Oc D						21	41	I Sb I
	3	55	III Tr I		17	27	II Tr I	16	2	11	I Oc R		22	58	I Tr I
	7	10	III Tr E		17	37	II Sb E		12	33	IV Sb I		23	56	I Sb E
	12	21	II Sb I		20	12	II Tr E		15	53	IV Sb E				
	14	51	II Tr I		20	43	I Ec D		19	47	I Sb I	24	1	14	I Tr E
	15	3	II Sb E		21	15	IV Oc R		21	5	I Tr I		14	22	II Ec D
	17	36	II Tr E						22	2	I Sb E		18	58	I Ec D
	18	50	I Ec D	9	0	17	I Oc R		23	20	I Tr E		19	50	II Oc R
	22	22	I Oc R		17	54	I Sb I						22	32	I Oc R
					19	11	I Tr I	17	0	44	IV Tr I		23	18	IV Ec D
2	16	0	I Sb I		20	8	I Sb E		4	37	IV Tr E				
	17	16	I Tr I		21	26	I Tr E		11	46	II Ec D	25	2	47	IV Ec R
	18	14	I Sb E						17	5	I Ec D		11	20	IV Oc D
	19	31	I Tr E						17	15	II Oc R		15	20	IV Oc R
				10	9	10	II Ec D		20	39	I Oc R		16	9	I Sb I
3	6	35	II Ec D		14	38	II Oc R						17	26	I Tr I
	11	59	II Oc R		15	12	I Ec D	18	14	16	I Sb I		18	24	I Sb E
	13	19	I Ec D		18	46	I Oc R		15	33	I Tr I		19	42	I Tr E
	16	51	I Oc R						16	30	I Sb E				
				11	12	22	I Sb I		17	49	I Tr E	26	0	53	III Ec D
4	10	28	I Sb I		13	39	I Tr I		20	55	III Ec D		4	4	III Ec R
	11	45	I Tr I		14	37	I Sb E						6	3	III Oc D
	12	43	I Sb E		15	55	I Tr E						9	19	II Sb I
	12	59	III Ec D		16	57	III Ec D	19	0	5	III Ec R		9	23	III Oc R
	14	0	I Tr E		20	6	III Ec R		2	9	III Oc D		11	50	II Tr I
	16	7	III Ec R		22	10	III Oc D		5	28	III Oc R		12	2	II Sb E
	18	7	III Oc D						6	46	II Sb I		13	26	I Ec D
	21	24	III Oc R	12	1	28	III Oc R		9	18	II Tr I		14	36	II Tr E
					4	12	II Sb I		11	33	I Ec D		17	0	I Oc R
					6	45	II Tr I		12	4	II Tr E				
5	1	38	II Sb I		6	54	II Sb E		15	7	I Oc R	27	10	38	I Sb I
	4	9	II Tr I		9	30	II Tr E						11	54	I Tr I
	4	20	II Sb E		9	40	I Ec D	20	8	44	I Sb I		12	53	I Sb E
	6	54	II Tr E		13	14	I Oc R		10	2	I Tr I		14	10	I Tr E
	7	47	I Ec D						10	59	I Sb E				
	11	20	I Oc R	13	6	50	I Sb I		12	17	I Tr E	28	3	39	II Ec D
					8	8	I Tr I						7	55	I Ec D
6	4	57	I Sb I		9	5	I Sb E						9	6	II Oc R
	6	13	I Tr I		10	23	I Tr E	21	1	3	II Ec D		11	28	I Oc R
	7	11	I Sb E		22	28	II Ec D		6	2	I Ec D				
	8	29	I Tr E						6	32	II Oc R				
	19	52	II Ec D	14	3	56	II Oc R		9	35	I Oc R	29	5	6	I Sb I
					4	8	I Ec D						6	22	I Tr I
7	1	18	II Oc R		7	42	I Oc R	22	3	12	I Sb I		7	21	I Sb E
	2	15	I Ec D						4	30	I Tr I		8	38	I Tr E
	5	48	I Oc R						5	27	I Sb E		14	43	III Sb I
	23	25	I Sb I	15	1	19	I Sb I		6	46	I Tr E		17	53	III Sb E
					2	37	I Tr I		10	44	III Sb I		19	51	III Tr I
8	0	42	I Tr I		3	34	I Sb E		13	52	III Sb E		22	36	II Sb I
	1	40	I Sb E		4	52	I Tr E		15	57	III Tr I		23	9	III Tr E
	2	48	III Sb I		6	46	III Sb I		19	15	III Tr E				
	2	58	I Tr E		9	53	III Sb E		20	2	II Sb I	30	1	5	II Tr I
	5	20	IV Ec D		12	0	III Tr I		22	34	II Tr I		1	18	II Sb E
	5	54	III Sb E		15	17	III Tr E		22	45	II Sb E		2	23	I Ec D
	7	59	III Tr I		17	29	II Sb I						3	51	II Tr E
	8	40	IV Ec R		20	2	II Tr I						5	55	I Oc R
	11	15	III Tr E		20	11	II Sb E	23	0	30	I Ec D		23	35	I Sb I
					22	37	I Ec D		1	20	II Tr E				

I ABR 16 $x_1 = -2.09; y_1 = -0.14$ **II ABR 17** $x_1 = -2.75; y_1 = -0.25$ **III ABR 18/19** $x_1 = -3.74; y_1 = -0.38$ $x_2 = -2.03; y_2 = -0.39$ **IV MAR 8** $x_1 = -5.72; y_1 = -0.54$ $x_2 = -4.37; y_2 = -0.55$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
MAIO

d	h	m		d	h	m		d	h	m		d	h	m	
1	0	50	I Tr I	9	0	53	II Oc R	17	0	6	I Sb E	24	20	58	III Oc D
	1	50	I Sb E		2	14	I Oc R		1	15	I Tr E		20	59	I Ec D
	3	6	I Tr E		19	57	I Sb I		12	47	III Ec D		21	35	II Tr I
	16	58	II Ec D		21	9	I Tr I		16	0	III Ec R		22	16	II Sb E
	20	51	I Ec D		22	12	I Sb E		16	59	II Sb I				
	22	23	II Oc R		23	25	I Tr E		17	21	III Oc D	25	0	18	I Oc R
									19	6	I Ec D		0	20	III Oc R
2	0	23	I Oc R	10	8	49	III Ec D		19	12	II Tr I		0	21	II Tr E
	18	3	I Sb I		12	1	III Ec R		19	42	II Sb E		18	13	I Sb I
	19	18	I Tr I		13	39	III Oc D		20	42	III Oc R		19	15	I Tr I
	20	18	I Sb E		14	26	II Sb I		21	58	II Tr E		20	28	I Sb E
	21	34	I Tr E		16	47	II Tr I		22	30	I Oc R		21	31	I Tr E
					17	0	III Oc R								
3	4	51	III Ec D		17	9	II Sb E	18	16	19	I Sb I	26	14	4	II Ec D
	6	31	IV Sb I		17	13	I Ec D		17	26	I Tr I		15	28	I Ec D
	8	3	III Ec R		19	33	II Tr E		18	34	I Sb E		18	45	I Oc R
	9	53	III Oc D		20	41	I Oc R		19	42	I Tr E		19	0	II Oc R
	10	1	IV Sb E												
	11	52	II Sb I	11	14	25	I Sb I	19	11	27	II Ec D	27	12	41	I Sb I
	13	14	III Oc R		15	37	I Tr I		13	34	I Ec D		13	42	I Tr I
	14	19	II Tr I		16	40	I Sb E		16	35	II Oc R		14	57	I Sb E
	14	35	II Sb E		17	18	IV Ec D		16	57	I Oc R		15	58	I Tr E
	15	20	I Ec D		17	53	I Tr E								
	17	5	II Tr E		20	55	IV Ec R	20	0	31	IV Sb I	28	6	37	III Sb I
	18	16	IV Tr I						4	9	IV Sb E		8	49	II Sb I
	18	51	I Oc R	12	4	25	IV Oc D		10	47	I Sb I		9	51	III Sb E
	22	16	IV Tr E		8	30	IV Oc R		10	53	IV Tr I		9	56	I Ec D
					8	51	II Ec D		11	54	I Tr I		10	39	III Tr I
4	12	31	I Sb I		11	41	I Ec D		13	3	I Sb E		10	46	II Tr I
	13	46	I Tr I		14	8	II Oc R		14	10	I Tr E		11	18	IV Ec D
	14	47	I Sb E		15	8	I Oc R		14	56	IV Tr E		11	33	II Sb E
	16	2	I Tr E										13	12	I Oc R
				13	8	54	I Sb I	21	2	39	III Sb I		13	32	II Tr E
5	6	15	II Ec D		10	4	I Tr I		5	52	III Sb E		13	59	III Tr E
	9	48	I Ec D		11	9	I Sb E		6	15	II Sb I		15	2	IV Ec R
	11	38	II Oc R		12	20	I Tr E		7	4	III Tr I		20	32	IV Oc D
	13	19	I Oc R		22	41	III Sb I		8	3	I Ec D				
									8	24	II Tr I	29	0	40	IV Oc R
6	7	0	I Sb I	14	1	52	III Sb E		8	59	II Sb E		7	10	I Sb I
	8	14	I Tr I		3	24	III Tr I		10	24	III Tr E		8	9	I Tr I
	9	15	I Sb E		3	42	II Sb I		11	10	II Tr E		9	25	I Sb E
	10	30	I Tr E		6	0	II Tr I		11	24	I Oc R		10	25	I Tr E
	18	42	III Sb I		6	9	I Ec D								
	21	52	III Sb E		6	26	II Sb E	22	5	16	I Sb I	30	3	22	II Ec D
	23	40	III Tr I		6	44	III Tr E		6	21	I Tr I		4	24	I Ec D
					8	46	II Tr E		7	31	I Sb E		7	39	I Oc R
7	1	9	II Sb I		9	36	I Oc R		8	37	I Tr E		8	12	II Oc R
	2	59	III Tr E												
	3	33	II Tr I	15	3	22	I Sb I	23	0	46	II Ec D	31	1	38	I Sb I
	3	52	II Sb E		4	32	I Tr I		2	31	I Ec D		2	36	I Tr I
	4	16	I Ec D		5	37	I Sb E		5	48	II Oc R		3	54	I Sb E
	6	19	II Tr E		6	48	I Tr E		5	51	I Oc R		4	52	I Tr E
	7	46	I Oc R		22	10	II Ec D		23	44	I Sb I		20	44	III Ec D
													22	5	II Sb I
8	1	28	I Sb I	16	0	38	I Ec D	24	0	48	I Tr I		22	53	I Ec D
	2	42	I Tr I		3	22	II Oc R		2	0	I Sb E		23	56	II Tr I
	3	43	I Sb E		4	3	I Oc R		3	4	I Tr E		23	60	III Ec R
	4	57	I Tr E		21	50	I Sb I		16	46	III Ec D				
	19	34	II Ec D		22	59	I Tr I		19	32	II Sb I				
	22	45	I Ec D						20	0	III Ec R				
I MAIO 16				II MAIO 15				III MAIO 17				IV MAIO 11			
$x_1 = -1.97; y_1 = -0.13$				$x_1 = -2.56; y_1 = -0.23$				$x_1 = -3.40; y_1 = -0.36$				$x_1 = -5.41; y_1 = -0.48$			
								$x_2 = -1.65; y_2 = -0.37$				$x_2 = -3.94; y_2 = -0.49$			

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
JUNHO

d	h	m		d	h	m		d	h	m		d	h	m		
1	0	31	III Oc D	8	3	60	III Ec R	15	10	47	III Oc R	23	2	19	I Tr I	
	0	50	II Sb E		4	0	III Oc D		23	55	I Sb I		4	5	I Sb E	
	2	5	I Oc R		5	2	II Tr E						4	36	I Tr E	
	2	43	II Tr E		7	22	III Oc R	16	0	35	I Tr I		23	2	I Ec D	
	3	53	III Oc R		22	0	I Sb I		2	11	I Sb E					
	20	6	I Sb I		22	49	I Tr I		2	51	I Tr E	24	0	30	II Ec D	
	21	2	I Tr I						21	8	I Ec D		1	47	I Oc R	
	22	23	I Sb E	9	0	17	I Sb E		21	53	II Ec D		4	21	II Oc R	
	23	19	I Tr E		1	5	I Tr E						20	17	I Sb I	
					19	15	I Ec D	17	0	3	I Oc R		20	46	I Tr I	
2	16	40	II Ec D		19	17	II Ec D		2	3	II Oc R		22	34	I Sb E	
	17	21	I Ec D		22	18	I Oc R		18	23	I Sb I		23	3	I Tr E	
	20	32	I Oc R		23	44	II Oc R		19	1	I Tr I					
	21	23	II Oc R						20	40	I Sb E	25	17	30	I Ec D	
				10	16	29	I Sb I		21	18	I Tr E		19	2	II Sb I	
3	14	35	I Sb I		17	15	I Tr I						19	55	II Tr I	
	15	29	I Tr I		18	45	I Sb E	18	15	36	I Ec D		20	13	I Oc R	
	16	51	I Sb E		19	32	I Tr E		16	29	II Sb I		21	48	II Sb E	
	17	46	I Tr E						17	40	II Tr I		22	33	III Sb I	
									18	29	I Oc R		22	42	II Tr E	
4	10	36	III Sb I	11	13	43	I Ec D		18	34	III Sb I					
	11	22	II Sb I		13	55	II Sb I		19	14	II Sb E	26	0	20	III Tr I	
	11	49	I Ec D		14	34	III Sb I		20	27	II Tr E		1	51	III Sb E	
	13	6	II Tr I		15	24	II Tr I		21	0	III Tr I		3	42	III Tr E	
	13	51	III Sb E		16	40	II Sb E		21	51	III Sb E		14	46	I Sb I	
	14	7	II Sb E		16	44	I Oc R						15	12	I Tr I	
	14	9	III Tr I		17	36	III Tr I		19	0	21	III Tr E		17	3	I Sb E
	14	58	I Oc R		17	50	III Sb E	19	12	52	I Sb I		17	29	I Tr E	
	15	52	II Tr E		18	11	II Tr E		13	27	I Tr I					
	17	30	III Tr E		20	57	III Tr E		15	8	I Sb E	27	11	59	I Ec D	
				12	10	57	I Sb I		15	44	I Tr E		13	49	II Ec D	
5	9	3	I Sb I		11	42	I Tr I						14	39	I Oc R	
	9	56	I Tr I		13	14	I Sb E	20	10	5	I Ec D		17	29	II Oc R	
	11	20	I Sb E		13	58	I Tr E		11	12	II Ec D					
	12	12	I Tr E						12	55	I Oc R	28	9	14	I Sb I	
	18	31	IV Sb I	13	8	11	I Ec D		15	13	II Oc R		9	38	I Tr I	
	22	17	IV Sb E		8	36	II Ec D						11	31	I Sb E	
					11	10	I Oc R	21	7	20	I Sb I		11	55	I Tr E	
6	2	33	IV Tr I		12	54	II Oc R		7	53	I Tr I					
	5	59	II Ec D						9	37	I Sb E	29	6	27	I Ec D	
	6	18	I Ec D						10	10	I Tr E		8	19	II Sb I	
	6	39	IV Tr E	14	5	18	IV Ec D						9	2	II Tr I	
	9	25	I Oc R		5	26	I Sb I						9	5	I Oc R	
	10	34	II Oc R		6	8	I Tr I	22	4	33	I Ec D		11	6	II Sb E	
					7	42	I Sb E		5	45	II Sb I		11	49	II Tr E	
7	3	32	I Sb I		8	25	I Tr E		6	48	II Tr I		12	38	III Ec D	
	4	22	I Tr I		9	10	IV Ec R		7	21	I Oc R		17	26	III Oc R	
	5	48	I Sb E		11	47	IV Oc D		8	31	II Sb E					
	6	39	I Tr E		15	55	IV Oc R		8	40	III Ec D					
									9	35	II Tr E	30	3	43	I Sb I	
8	0	38	II Sb I	15	2	40	I Ec D		12	32	IV Sb I		4	4	I Tr I	
	0	43	III Ec D		3	12	II Sb I		14	8	III Oc R		6	0	I Sb E	
	0	46	I Ec D		4	32	II Tr I		16	26	IV Sb E		6	21	I Tr E	
	2	15	II Tr I		4	42	III Ec D		17	24	IV Tr I		23	20	IV Ec D	
	3	24	II Sb E		5	37	I Oc R		21	30	IV Tr E					
	3	51	I Oc R		5	57	II Sb E									
					7	19	II Tr E	23	1	49	I Sb I					

I JUN 16

 $x_1 = -1.54; y_1 = -0.13$

II JUN 16

 $x_1 = -1.87; y_1 = -0.22$

III JUN 15

 $x_1 = -2.41; y_1 = -0.35$

IV JUN 14

 $x_1 = -3.55; y_1 = -0.47$
 $x_2 = -1.95; y_2 = -0.48$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
JULHO

d	h	m		d	h	m		d	h	m		d	h	m	
1	0	55	I Ec D	9	2	23	I Sb E	17	1	28	I Ec R	24	14	31	III Sb I
	3	7	II Ec D		2	31	I Tr E		2	36	II Tr I		16	49	III Tr E
	3	31	I Oc R		6	35	IV Sb I		2	44	II Sb I		17	53	III Sb E
	6	28	IV Oc R		7	42	IV Tr I		5	23	II Tr E		22	8	I Tr I
	6	37	II Oc R		10	36	IV Sb E		5	32	II Sb E		22	24	I Sb I
	22	12	I Sb I		11	48	IV Tr E		10	12	III Tr I				
	22	30	I Tr I		21	18	I Ec D		10	31	III Sb I	25	0	25	I Tr E
					23	41	I Oc R		13	33	III Tr E		0	41	I Sb E
2	0	29	I Sb E						13	52	III Sb E		19	18	I Oc D
	0	47	I Tr E	10	0	10	II Sb I		16	33	IV Oc D		21	51	I Ec R
	19	24	I Ec D		0	23	II Tr I		20	24	I Tr I		21	54	IV Tr I
	21	36	II Sb I		2	57	II Sb E		20	29	I Sb I		23	42	II Oc D
	21	57	I Oc R		3	10	II Tr E		21	28	IV Ec R				
	22	9	II Tr I		6	32	III Sb I		22	41	I Tr E	26	0	39	IV Sb I
					6	56	III Tr I		22	47	I Sb E		1	59	IV Tr E
3	0	23	II Sb E		9	52	III Sb E						3	8	II Ec R
	0	56	II Tr E		10	17	III Tr E	18	17	34	I Oc D		4	46	IV Sb E
	2	33	III Sb I		18	35	I Sb I		19	57	I Ec R		16	34	I Tr I
	3	39	III Tr I		18	40	I Tr I		21	26	II Oc D		16	53	I Sb I
	5	52	III Sb E		20	52	I Sb E						18	51	I Tr E
	7	1	III Tr E		20	57	I Tr E	19	0	30	II Ec R		19	10	I Sb E
	16	40	I Sb I						14	50	I Tr I				
	16	56	I Tr I	11	15	46	I Ec D		14	58	I Sb I	27	13	44	I Oc D
	18	57	I Sb E		18	7	I Oc R		17	7	I Tr E		16	20	I Ec R
	19	13	I Tr E		19	3	II Ec D		17	15	I Sb E		17	57	II Tr I
					22	1	II Oc R						18	36	II Sb I
4	13	52	I Ec D					20	12	0	I Oc D		20	44	II Tr E
	16	23	I Oc R	12	13	3	I Sb I		14	25	I Ec R		21	24	II Sb E
	16	26	II Ec D		13	6	I Tr I		15	43	II Tr I				
	19	45	II Oc R		15	21	I Sb E		16	2	II Sb I	28	3	13	III Oc D
					15	23	I Tr E		18	30	II Tr E		7	59	III Ec R
5	11	9	I Sb I						18	49	II Sb E		11	1	I Tr I
	11	22	I Tr I	13	10	15	I Ec D		23	55	III Oc D		11	22	I Sb I
	13	26	I Sb E		12	32	I Oc R						13	17	I Tr E
	13	39	I Tr E		13	27	II Sb I	21	3	58	III Ec R		13	39	I Sb E
					13	29	II Tr I		9	16	I Tr I				
6	8	21	I Ec D		16	15	II Sb E		9	27	I Sb I	29	8	10	I Oc D
	10	49	I Oc R		16	17	II Tr E		11	33	I Tr E		10	48	I Ec R
	10	53	II Sb I		20	37	III Ec D		11	44	I Sb E		12	49	II Oc D
	11	16	II Tr I										16	26	II Ec R
	13	40	II Sb E	14	0	0	III Oc R	22	6	26	I Oc D				
	14	3	II Tr E		7	32	I Tr I		8	54	I Ec R	30	5	27	I Tr I
	16	37	III Ec D		7	32	I Sb I		10	33	II Oc D		5	51	I Sb I
	20	43	III Oc R		9	49	I Tr E		13	49	II Ec R		7	44	I Tr E
					9	49	I Sb E						8	8	I Sb E
7	5	37	I Sb I					23	3	42	I Tr I				
	5	48	I Tr I	15	4	42	I Oc D		3	56	I Sb I	31	2	36	I Oc D
	7	54	I Sb E		6	60	I Ec R		5	59	I Tr E		5	17	I Ec R
	8	5	I Tr E		8	18	II Oc D		6	13	I Sb E		7	4	II Tr I
					11	11	II Ec R						7	54	II Sb I
8	2	49	I Ec D					24	0	52	I Oc D		9	51	II Tr E
	5	15	I Oc R	16	1	58	I Tr I		3	23	I Ec R		10	42	II Sb E
	5	44	II Ec D		2	1	I Sb I		4	50	II Tr I		16	47	III Tr I
	8	53	II Oc R		4	15	I Tr E		5	19	II Sb I		18	31	III Sb I
					4	18	I Sb E		7	37	II Tr E		20	7	III Tr E
9	0	6	I Sb I		23	8	I Oc D		8	7	II Sb E		21	53	III Sb E
	0	14	I Tr I						13	28	III Tr I		23	53	I Tr I

I JUL 15

II JUL 15

III JUL 13

IV JUL 17

 $x_1=+1.01; y_2=-0.13$ $x_2=+1.01; y_2=-0.21$ $x_1=-0.94; y_1=-0.36$ $x_2=+1.19; y_2=-0.49$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
AGOSTO

d	h	m		d	h	m		d	h	m		d	h	m	
1	0	19	I Sb I	9	1	40	I Ec R	16	22	38	I Sb I	24	20	47	I Oc D
	2	10	I Tr E		4	16	II Oc D						23	59	I Ec R
	2	36	I Sb E		8	22	II Ec R	17	0	8	I Tr E				
	21	2	I Oc D		20	5	I Tr I		0	55	I Sb E	25	3	8	II Tr I
	23	46	I Ec R		20	43	I Sb I		18	59	I Oc D		4	57	II Sb I
					22	22	I Tr E		22	4	I Ec R		5	54	II Tr E
					23	0	I Sb E						7	46	II Sb E
2	1	58	II Oc D					18	0	47	II Tr I		16	48	III Oc D
	5	45	II Ec R						2	22	II Sb I		18	6	I Tr I
	18	19	I Tr I	10	17	13	I Oc D		3	34	II Tr E		19	2	I Sb I
	18	48	I Sb I		20	9	I Ec R		5	10	II Sb E		20	9	III Oc R
	20	36	I Tr E		22	29	II Tr I		13	19	III Oc D		20	22	I Tr E
	21	5	I Sb E		23	46	II Sb I		16	18	I Tr I		20	35	III Ec D
									17	7	I Sb I		21	19	I Sb E
3	6	51	IV Oc D	11	1	16	II Tr E		18	35	I Tr E		23	60	III Ec R
	10	57	IV Oc R		2	35	II Sb E		19	24	I Sb E				
	11	27	IV Ec D		9	54	III Oc D		19	59	III Ec R	26	15	14	I Oc D
	15	28	I Oc D		12	24	IV Tr I						18	28	I Ec R
	15	37	IV Ec R		14	31	I Tr I						22	8	II Oc D
	18	14	I Ec R		15	12	I Sb I	19	13	26	I Oc D				
	20	12	II Tr I		15	59	III Ec R		16	33	I Ec R				
	21	11	II Sb I		16	28	IV Tr E		19	46	II Oc D	27	2	55	II Ec R
	22	59	II Tr E		16	48	I Tr E		21	41	IV Oc D		12	33	I Tr I
	23	59	II Sb E		17	29	I Sb E						13	31	I Sb I
					18	44	IV Sb I	20	0	18	II Ec R		14	49	I Tr E
4	6	33	III Oc D		22	56	IV Sb E		1	47	IV Oc R		15	47	I Sb E
	11	59	III Ec R						5	32	IV Ec D				
	12	46	I Tr I	12	11	40	I Oc D		9	48	IV Ec R	28	3	37	IV Tr I
	13	17	I Sb I		14	38	I Ec R		10	45	I Tr I		7	40	IV Tr E
	15	2	I Tr E		17	25	II Oc D		11	36	I Sb I		9	41	I Oc D
	15	34	I Sb E		21	41	II Ec R		13	1	I Tr E		12	50	IV Sb I
									13	52	I Sb E		12	56	I Ec R
5	9	54	I Oc D	13	8	58	I Tr I						16	19	II Tr I
	12	43	I Ec R		9	41	I Sb I	21	7	53	I Oc D		17	7	IV Sb E
	15	7	II Oc D		11	15	I Tr E		11	1	I Ec R		18	15	II Sb I
	19	3	II Ec R		11	57	I Sb E		13	57	II Tr I		19	5	II Tr E
									15	40	II Sb I		21	4	II Sb E
6	7	12	I Tr I	14	6	6	I Oc D		16	44	II Tr E	29	6	32	III Tr I
	7	46	I Sb I		9	6	I Ec R		18	28	II Sb E		7	0	I Tr I
	9	29	I Tr E		11	38	II Tr I						8	0	I Sb I
	10	2	I Sb E		13	4	II Sb I	22	3	0	III Tr I		9	16	I Tr E
					14	25	II Tr E		5	12	I Tr I		9	51	III Tr E
7	4	21	I Oc D		15	52	II Sb E		6	5	I Sb I		10	16	I Sb E
	7	12	I Ec R		23	32	III Tr I		6	20	III Tr E		10	33	III Sb I
	9	20	II Tr I						6	33	III Sb I		13	57	III Sb E
	10	29	II Sb I	15	2	32	III Sb I		7	28	I Tr E				
	12	7	II Tr E		2	52	III Tr E		8	21	I Sb E				
	13	17	II Sb E		3	25	I Tr I		9	56	III Sb E	30	4	8	I Oc D
	20	8	III Tr I		4	9	I Sb I						7	25	I Ec R
	22	32	III Sb I		5	41	I Tr E	23	2	20	I Oc D		11	20	II Oc D
	23	28	III Tr E		5	55	III Sb E		5	30	I Ec R		16	14	II Ec R
					6	26	I Sb E		8	57	II Oc D				
8	1	38	I Tr I						13	37	II Ec R	31	1	28	I Tr I
	1	54	III Sb E	16	0	33	I Oc D		23	39	I Tr I		2	29	I Sb I
	2	14	I Sb I		3	35	I Ec R						3	44	I Tr E
	3	55	I Tr E		6	36	II Oc D	24	0	33	I Sb I		4	45	I Sb E
	4	31	I Sb E		10	60	II Ec R		1	55	I Tr E		22	35	I Oc D
	22	47	I Oc D		21	52	I Tr I		2	50	I Sb E				

I AGO 16

II AGO 16

III AGO 18

IV AGO 20

 $x_2 = +1.64; y_2 = -0.13$ $x_2 = +2.04; y_2 = -0.21$ $x_2 = +2.73; y_2 = -0.37$
 $x_1 = +2.40; y_1 = -0.50$
 $x_2 = +4.16; y_2 = -0.50$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
SETEMBRO

d	h	m		d	h	m		d	h	m		d	h	m	
1	1	54	I Ec R	8	10	42	II Tr E	16	0	48	I Sb I	23	7	32	III Oc D
	5	30	II Tr I		12	58	II Sb E		1	52	I Tr E		10	54	III Oc R
	7	33	II Sb I		21	45	I Tr I		3	4	I Sb E		12	37	III Ec D
	8	17	II Tr E		22	53	I Sb I		3	45	III Oc D		16	5	III Ec R
	10	22	II Sb E						7	6	III Oc R		22	35	I Oc D
	19	55	I Tr I	9	0	1	I Tr E		8	37	III Ec D				
	20	23	III Oc D		0	1	III Oc D		12	4	III Ec R	24	2	9	I Ec R
	20	57	I Sb I		1	9	I Sb E		20	43	I Oc D		7	59	II Oc D
	22	11	I Tr E		3	22	III Oc R						13	24	II Ec R
	23	14	I Sb E		4	36	III Ec D	17	0	13	I Ec R		19	57	I Tr I
	23	43	III Oc R		8	3	III Ec R		5	28	II Oc D		21	12	I Sb I
					18	52	I Oc D		10	47	II Ec R		22	12	I Tr E
					22	18	I Ec R		18	4	I Tr I		23	28	I Sb E
2	0	36	III Ec D						19	17	I Sb I	25	17	3	I Oc D
	4	1	III Ec R	10	2	59	II Oc D		20	20	I Tr E		20	37	I Ec R
	17	2	I Oc D		8	10	II Ec R	18	21	33	I Sb E				
	20	23	I Ec R		16	13	I Tr I								
					17	22	I Sb I	18	15	11	I Oc D	26	2	8	II Tr I
3	0	32	II Oc D		18	28	I Tr E		18	42	I Ec R		4	41	II Sb I
	5	33	II Ec R		19	38	I Sb E		23	37	II Tr I		4	55	II Tr E
	14	22	I Tr I										7	30	II Sb E
	15	26	I Sb I					19	2	4	II Sb I		14	25	I Tr I
	16	38	I Tr E	11	13	19	I Oc D		2	24	II Tr E		15	41	I Sb I
	17	43	I Sb E		16	47	I Ec R		4	53	II Sb E		16	41	I Tr E
					21	9	II Tr I		12	32	I Tr I		17	57	I Sb E
4	11	29	I Oc D		23	28	II Sb I		13	46	I Sb I		21	25	III Tr I
	14	51	I Ec R		23	55	II Tr E		14	48	I Tr E				
	18	43	II Tr I						16	2	I Sb E	27	0	44	III Tr E
	20	51	II Sb I	12	2	17	II Sb E		17	34	III Tr I		2	35	III Sb I
	21	29	II Tr E		10	40	I Tr I		20	53	III Tr E		6	1	III Sb E
	23	40	II Sb E		11	50	I Sb I		22	33	III Sb I		11	32	I Oc D
					12	56	I Tr E						15	6	I Ec R
5	8	50	I Tr I		13	48	III Tr I	20	1	59	III Sb E		21	16	II Oc D
	9	55	I Sb I		14	7	I Sb E		9	39	I Oc D				
	10	8	III Tr I		17	8	III Tr E		13	11	I Ec R	28	2	42	II Ec R
	11	6	I Tr E		18	33	III Sb I		18	43	II Oc D		8	53	I Tr I
	12	11	I Sb E		21	58	III Sb E						10	10	I Sb I
	13	20	IV Oc D					21	0	5	II Ec R		11	9	I Tr E
	13	27	III Tr E	13	7	47	I Oc D		7	0	I Tr I		12	26	I Sb E
	14	33	III Sb I		11	16	I Ec R		8	15	I Sb I				
	17	26	IV Oc R		16	13	II Oc D		9	16	I Tr E	29	6	0	I Oc D
	17	57	III Sb E		19	45	IV Tr I		10	31	I Sb E		9	35	I Ec R
	23	38	IV Ec D		21	28	II Ec R						15	25	II Tr I
					23	48	IV Tr E						17	59	II Sb I
6	3	59	IV Ec R					22	4	7	I Oc D		18	12	II Tr E
	5	57	I Oc D	14	5	8	I Tr I		5	56	IV Oc D		20	49	II Sb E
	9	20	I Ec R		6	19	I Sb I		7	40	I Ec R				
	13	46	II Oc D		6	58	IV Sb I		10	4	IV Oc R	30	3	22	I Tr I
	18	51	II Ec R		7	24	I Tr E		12	53	II Tr I		4	39	I Sb I
					8	35	I Sb E		15	22	II Sb I		5	37	I Tr E
7	3	17	I Tr I		11	19	IV Sb E		15	39	II Tr E		6	55	I Sb E
	4	24	I Sb I						17	44	IV Ec D		11	24	III Oc D
	5	33	I Tr E	15	2	15	I Oc D		18	12	II Sb E		12	51	IV Tr I
	6	40	I Sb E		5	44	I Ec R		22	10	IV Ec R		14	46	III Oc R
					10	23	II Tr I						16	37	III Ec D
8	0	24	I Oc D		12	46	II Sb I	23	1	28	I Tr I		16	57	IV Tr E
	3	49	I Ec R		13	9	II Tr E		2	43	I Sb I		20	6	III Ec R
	7	55	II Tr I		15	35	II Sb E		3	44	I Tr E				
	10	9	II Sb I		23	36	I Tr I		4	59	I Sb E				

I SET 15

II SET 17

III SET 16

IV SET 22

 $x_1 = +2.01; y_2 = -0.13$ $x_2 = +2.66; y_2 = -0.20$ $x_1 = +1.75; y_1 = -0.37$ $x_2 = +3.61; y_2 = -0.36$ $x_1 = +4.00; y_1 = -0.49$ $x_2 = +5.80; y_2 = -0.49$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
OUTUBRO

d	h	m		d	h	m		d	h	m		d	h	m		
1	0	28	I Oc D	9	1	3	I Sb I	17	2	24	I Ec R	24	18	0	II Sb E	
	1	5	IV Sb I		2	1	I Tr E		6	53	IV Tr I		22	7	I Tr I	
	4	4	I Ec R		3	19	I Sb E		9	55	II Tr I		23	22	I Sb I	
	5	30	IV Sb E		3	43	IV Oc R		11	3	IV Tr E					
	10	32	II Oc D		11	52	IV Ec D		12	32	II Sb I	25	0	22	I Tr E	
	16	1	II Ec R		16	22	IV Ec R		12	43	II Tr E		1	38	I Sb E	
	21	50	I Tr I		20	52	I Oc D		15	22	II Sb E		13	28	III Tr I	
	23	8	I Sb I						19	13	IV Sb I		16	50	III Tr E	
				10	0	28	I Ec R		20	10	I Tr I		18	0	IV Oc D	
					7	18	II Tr I		21	27	I Sb I		18	37	III Sb I	
2	0	6	I Tr E		9	55	II Sb I		22	25	I Tr E		19	13	I Oc D	
	1	24	I Sb E		10	5	II Tr E		23	43	IV Sb E		22	6	III Sb E	
	18	57	I Oc D		12	45	II Sb E		23	43	I Sb E		22	15	IV Oc R	
	22	33	I Ec R		18	14	I Tr I						22	49	I Ec R	
					19	32	I Sb I	18	9	22	III Tr I					
3	4	42	II Tr I		20	29	I Tr E		12	43	III Tr E	26	5	59	IV Ec D	
	7	18	II Sb I		21	48	I Sb E		14	37	III Sb I		7	44	II Oc D	
	7	29	II Tr E						17	16	I Oc D		10	33	IV Ec R	
	10	7	II Sb E						18	5	III Sb E		13	9	II Ec R	
	16	19	I Tr I	11	5	19	III Tr I		20	53	I Ec R		16	36	I Tr I	
	17	37	I Sb I		8	39	III Tr E						17	51	I Sb I	
	18	34	I Tr E		10	37	III Sb I						18	51	I Tr E	
	19	52	I Sb E		14	4	III Sb E	19	5	4	II Oc D		20	7	I Sb E	
					15	20	I Oc D		10	32	II Ec R					
4	1	19	III Tr I		18	57	I Ec R		14	39	I Tr I		27	13	43	I Oc D
	4	39	III Tr E						15	56	I Sb I			17	17	I Ec R
	6	36	III Sb I	12	2	26	II Oc D		16	54	I Tr E					
	10	2	III Sb E		7	56	II Ec R		18	12	I Sb E					
	13	25	I Oc D		12	43	I Tr I					28	1	56	II Tr I	
	17	2	I Ec R		14	1	I Sb I	20	11	46	I Oc D		4	28	II Sb I	
	23	50	II Oc D		14	58	I Tr E		15	22	I Ec R		4	44	II Tr E	
					16	17	I Sb E		23	15	II Tr I		7	19	II Sb E	
													11	5	I Tr I	
5	5	19	II Ec R					21	1	50	II Sb I		12	20	I Sb I	
	10	48	I Tr I	13	9	49	I Oc D		2	3	II Tr E		13	21	I Tr E	
	12	5	I Sb I		13	26	I Ec R		4	41	II Sb E		14	36	I Sb E	
	13	3	I Tr E		20	36	II Tr I		9	8	I Tr I					
	14	21	I Sb E		23	13	II Sb I		10	25	I Sb I	29	3	35	III Oc D	
					23	24	II Tr E		11	24	I Tr E		7	0	III Oc R	
6	7	54	I Oc D						12	41	I Sb E		8	12	I Oc D	
	11	31	I Ec R	14	2	3	II Sb E		23	27	III Oc D		8	40	III Ec D	
	17	59	II Tr I		7	12	I Tr I						11	46	I Ec R	
	20	36	II Sb I		8	30	I Sb I						12	11	III Ec R	
	20	47	II Tr E		9	27	I Tr E		22	2	50	III Oc R	21	5	II Oc D	
	23	26	II Sb E		10	45	I Sb E		4	39	III Ec D					
					19	21	III Oc D		6	15	I Oc D					
					22	44	III Oc R		8	10	III Ec R	30	2	27	II Ec R	
7	5	16	I Tr I						9	51	I Ec R		5	35	I Tr I	
	6	34	I Sb I						18	24	II Oc D		6	49	I Sb I	
	7	32	I Tr E						23	50	II Ec R		7	50	I Tr E	
	8	50	I Sb E	15	0	38	III Ec D						9	5	I Sb E	
	15	20	III Oc D		4	18	I Oc D	23	3	37	I Tr I					
	18	43	III Oc R		7	55	I Ec R		4	54	I Sb I	31	2	42	I Oc D	
	20	38	III Ec D		15	45	II Oc D		5	53	I Tr E		6	15	I Ec R	
					21	14	II Ec R		7	10	I Sb E		15	17	II Tr I	
													17	47	II Sb I	
8	0	7	III Ec R										18	6	II Tr E	
	2	23	I Oc D	16	1	41	I Tr I		24	0	44	I Oc D	20	38	II Sb E	
	5	60	I Ec R		2	58	I Sb I			4	20	I Ec R				
	13	8	II Oc D		3	56	I Tr E			12	35	II Tr I				
	18	37	II Ec R		5	14	I Sb E			15	9	II Sb I				
	23	32	IV Oc D		22	47	I Oc D			15	24	II Tr E				
	23	45	I Tr I													

I OUT 15

 $x_2 = +2.11; y_2 = -0.12$

II OUT 15

 $x_2 = +2.78; y_2 = -0.18$

III OUT 15

 $x_1 = +1.96; y_1 = -0.35$ $x_2 = +3.84; y_2 = -0.35$

IV OUT 9

 $x_1 = +4.20; y_1 = -0.48$ $x_2 = +6.02; y_2 = -0.48$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
NOVEMBRO

d	h	m		d	h	m		d	h	m		d	h	m	
1	0	4	I Tr I	8	5	29	I Sb E	16	2	9	III Tr I	23	10	40	III Sb I
	1	18	I Sb I		21	52	III Tr I		4	35	I Ec R		14	12	III Sb E
	2	20	I Tr E		23	10	I Oc D		5	34	III Tr E		18	38	II Oc D
	3	34	I Sb E						6	40	III Sb I		23	33	II Ec R
	17	38	III Tr I	9	1	16	III Tr E		10	10	III Sb E				
	21	1	III Tr E		2	38	III Sb I		15	53	II Oc D	24	0	31	I Tr I
	21	11	I Oc D		2	40	I Ec R		20	57	II Ec R		1	32	I Sb I
	22	38	III Sb I		6	8	III Sb E		22	31	I Tr I		2	47	I Tr E
					13	9	II Oc D		23	37	I Sb I		3	48	I Sb E
2	0	44	I Ec R		18	21	II Ec R						21	40	I Oc D
	2	7	III Sb E		20	32	I Tr I	17	0	47	I Tr E				
	10	26	II Oc D		21	42	I Sb I		1	53	I Sb E	25	0	60	I Ec R
	15	45	II Ec R		22	48	I Tr E		19	39	I Oc D		12	56	II Tr I
	18	34	I Tr I		23	58	I Sb E		23	4	I Ec R		14	59	II Sb I
	19	47	I Sb I										15	47	II Tr E
	20	49	I Tr E	10	17	40	I Oc D	18	10	9	II Tr I		17	52	II Sb E
	22	3	I Sb E		21	9	I Ec R		12	21	II Sb I		19	1	I Tr I
									12	59	II Tr E		20	1	I Sb I
3	1	46	IV Tr I	11	7	23	II Tr I		15	13	II Sb E		21	17	I Tr E
	6	1	IV Tr E		9	43	II Sb I		17	1	I Tr I		22	17	I Sb E
	13	22	IV Sb I		10	12	II Tr E		18	6	I Sb I				
	15	41	I Oc D		12	35	II Sb E		19	17	I Tr E	26	16	10	I Oc D
	17	56	IV Sb E		13	13	IV Oc D		20	22	I Sb E		19	29	I Ec R
	19	13	I Ec R		15	2	I Tr I						20	41	III Oc D
					16	10	I Sb I	19	14	9	I Oc D				
4	4	38	II Tr I		17	17	I Tr E		16	21	III Oc D	27	0	9	III Oc R
	7	5	II Sb I		17	34	IV Oc R		17	33	I Ec R		0	43	III Ec D
	7	27	II Tr E		18	27	I Sb E		19	48	III Oc R		4	16	III Ec R
	9	57	II Sb E						20	42	III Ec D		8	1	II Oc D
	13	3	I Tr I	12	0	7	IV Ec D		21	19	IV Tr I		12	50	II Ec R
	14	15	I Sb I		4	44	IV Ec R						13	31	I Tr I
	15	19	I Tr E		12	3	III Oc D	20	0	15	III Ec R		14	29	I Sb I
	16	31	I Sb E		12	10	I Oc D		1	41	IV Tr E		15	47	I Tr E
					15	29	III Oc R		5	15	II Oc D		16	46	I Sb E
5	7	48	III Oc D		15	38	I Ec R		7	31	IV Sb I				
	10	11	I Oc D		16	42	III Ec D		10	15	II Ec R	28	9	3	IV Oc D
	11	13	III Oc R		20	14	III Ec R		11	31	I Tr I		10	40	I Oc D
	12	41	III Ec D						12	9	IV Sb E		13	31	IV Oc R
	13	42	I Ec R	13	2	30	II Oc D		12	34	I Sb I		13	58	I Ec R
	16	13	III Ec R		7	39	II Ec R		13	47	I Tr E		18	15	IV Ec D
	23	47	II Oc D		9	31	I Tr I		14	51	I Sb E		22	55	IV Ec R
					10	39	I Sb I								
6	5	3	II Ec R		11	47	I Tr E	21	8	39	I Oc D	29	2	20	II Tr I
	7	33	I Tr I		12	55	I Sb E		12	2	I Ec R		4	18	II Sb I
	8	44	I Sb I						23	32	II Tr I		5	12	II Tr E
	9	48	I Tr E										7	11	II Sb E
	11	0	I Sb E	14	6	39	I Oc D						8	1	I Tr I
					10	6	I Ec R	22	1	40	II Sb I		8	58	I Sb I
					20	46	II Tr I		2	23	II Tr E		10	17	I Tr E
7	4	40	I Oc D		23	2	II Sb I		4	33	II Sb E		11	15	I Sb E
	8	11	I Ec R		23	36	II Tr E		6	1	I Tr I				
	18	0	II Tr I						7	3	I Sb I				
	20	25	II Sb I						8	17	I Tr E				
	20	50	II Tr E	15	1	55	II Sb E		9	19	I Sb E	30	5	10	I Oc D
	23	16	II Sb E		4	1	I Tr I						8	26	I Ec R
					5	8	I Sb I						10	50	III Tr I
					6	17	I Tr E						14	17	III Tr E
8	2	2	I Tr I		7	24	I Sb E	23	3	9	I Oc D		14	41	III Sb I
	3	13	I Sb I						6	28	III Tr I		18	13	III Sb E
	4	18	I Tr E	16	1	9	I Oc D		6	31	I Ec R		21	24	II Oc D
									9	54	III Tr E				

I NOV 16

II NOV 16

III NOV 12

IV NOV 12

 $x_1 = +1.95; y_2 = -0.11$ $x_2 = +2.51; y_2 = -0.16$ $x_1 = +1.60; y_1 = -0.33$ $x_2 = +3.50; y_2 = -0.32$ $x_1 = +3.57; y_1 = -0.43$ $x_2 = +5.44; y_2 = -0.43$

SATÉLITES DE JÚPITER, 2020
TEMPO TERRESTRE DO FENÔMENO GEOCÊNTRICO
DEZEMBRO

d	h	m		d	h	m		d	h	m		d	h	m		
1	2	8	II Ec R	8	7	38	I Sb E	17	0	17	II Tr E	25	0	16	I Oc D	
	2	31	I Tr I						1	2	I Tr E		3	11	I Ec R	
	3	27	I Sb I	9	1	41	I Oc D		1	45	I Sb I		14	24	III Oc D	
	4	47	I Tr E		4	51	I Ec R		1	47	II Sb E		19	11	II Oc D	
	5	43	I Sb E		18	34	II Tr I		3	19	I Tr E		20	21	III Ec R	
	23	40	I Oc D		20	15	II Sb I		4	2	I Sb E		21	34	I Tr I	
					21	26	II Tr E		22	14	I Oc D		22	8	I Sb I	
2	2	55	I Ec R		23	1	I Tr I	18	1	15	I Ec R		23	12	II Ec R	
	15	44	II Tr I		23	9	II Sb E		9	56	III Oc D		23	51	I Tr E	
	17	37	II Sb I		23	50	I Sb I		16	20	III Ec R	26	0	25	I Sb E	
	18	36	II Tr E						16	22	II Oc D		18	46	I Oc D	
	20	30	II Sb E	10	1	18	I Tr E		19	33	I Tr I		21	39	I Ec R	
	21	1	I Tr I		2	7	I Sb E		20	14	I Sb I					
	21	55	I Sb I		20	12	I Oc D		20	37	II Ec R	27	13	42	II Tr I	
	23	17	I Tr E		23	20	I Ec R		21	49	I Tr E		14	51	II Sb I	
									22	31	I Sb E		16	4	I Tr I	
3	0	12	I Sb E	11	5	29	III Oc D						16	36	II Tr E	
	18	11	I Oc D		12	19	III Ec R		19	16	44	I Oc D	16	37	I Sb I	
	21	24	I Ec R		13	34	II Oc D	19	19	44	I Ec R		17	45	II Sb E	
					17	32	I Tr I						18	21	I Tr E	
4	1	4	III Oc D		18	1	II Ec R	20	10	51	II Tr I		18	54	I Sb E	
	4	33	III Oc R		18	19	I Sb I		12	13	II Sb I					
	4	43	III Ec D		19	48	I Tr E		13	44	II Tr E	28	13	17	I Oc D	
	8	17	III Ec R		20	36	I Sb E		14	3	I Tr I		16	8	I Ec R	
	10	47	II Oc D						14	42	I Sb I					
	15	26	II Ec R	12	14	42	I Oc D		15	7	II Sb E	29	4	33	III Tr I	
	15	31	I Tr I		17	49	I Ec R		16	19	I Tr E		6	41	III Sb I	
	16	24	I Sb I						16	59	I Sb E		8	5	III Tr E	
	17	47	I Tr E	13	8	0	II Tr I						8	35	II Oc D	
	18	41	I Sb E		9	34	II Sb I		21	11	15	I Oc D	10	16	III Sb E	
					10	52	II Tr E			14	13	I Ec R	10	34	I Tr I	
5	12	41	I Oc D		12	2	I Tr I						11	6	I Sb I	
	15	53	I Ec R		12	28	II Sb E		22	0	5	III Tr I	12	30	II Ec R	
					12	48	I Sb I		2	41	III Sb I		12	51	I Tr E	
6	5	9	II Tr I		14	18	I Tr E		3	36	III Tr E		13	23	I Sb E	
	6	56	II Sb I		15	5	I Sb E		5	46	II Oc D					
	8	1	II Tr E						6	15	III Sb E	30	7	47	I Oc D	
	9	50	II Sb E	14	9	13	I Oc D		8	33	I Tr I		10	37	I Ec R	
	10	1	I Tr I		12	17	I Ec R		9	11	I Sb I					
	10	53	I Sb I		19	38	III Tr I		9	54	II Ec R	31	3	8	II Tr I	
	12	17	I Tr E		22	41	III Sb I		10	50	I Tr E		4	9	II Sb I	
	13	10	I Sb E		23	8	III Tr E		11	28	I Sb E		5	5	I Tr I	
	17	26	IV Tr I										5	34	I Sb I	
	21	55	IV Tr E	15	2	15	III Sb E		23	5	45	I Oc D	6	2	II Tr E	
					2	58	II Oc D			8	42	I Ec R	7	4	II Sb E	
7	1	40	IV Sb I		5	22	IV Oc D			13	57	IV Tr I	7	22	I Tr E	
	6	21	IV Sb E		6	32	I Tr I		18	33	IV Tr E		7	51	I Sb E	
	7	11	I Oc D		7	16	I Sb I		19	50	IV Sb I					
	10	22	I Ec R		7	19	II Ec R									
	15	13	III Tr I		8	49	I Tr E		24	0	16	II Tr I	32	1	59	IV Oc D
	18	41	III Sb I		9	33	I Sb E			0	34	IV Sb E		2	18	I Oc D
	18	42	III Tr E		9	55	IV Oc R			1	31	II Sb I		5	6	I Ec R
	22	14	III Sb E		12	23	IV Ec D			3	3	I Tr I		11	16	IV Ec R
					17	6	IV Ec R			3	9	II Tr E		18	53	III Oc D
8	0	11	II Oc D							3	40	I Sb I		22	0	II Oc D
	4	31	I Tr I	16	3	43	I Oc D			4	25	II Sb E		23	35	I Tr I
	4	44	II Ec R		6	46	I Ec R			5	20	I Tr E				
	5	22	I Sb I		21	25	II Tr I			5	57	I Sb E				
	6	48	I Tr E		22	53	II Sb I									

I DEZ 16

II DEZ 15

III DEZ 18

IV DEZ 15

 $x_1 = +1.63; y_2 = -0.09$ $x_2 = +2.02; y_2 = -0.12$ $x_2 = +2.52; y_2 = -0.26$
 $x_1 = +1.94; y_1 = -0.34$
 $x_2 = +3.87; y_2 = -0.34$