

Τ Α Φ Α Ι Ν Ο Μ Ε Ν Α Τ Ω Ν Δ Ο Ρ Υ Φ Ο Ρ Ω Ν Τ Ο Υ Δ Ι Α

ΑΥΓΟΥΣΤΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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21	04	51	I	TR.I	24	04	29	III	SH.E										
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ΣΕΠΤΕΜΒΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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5	04	54	I	EC.D	14	04	43	I	OC.R	21	03	11	I	EC.D	29	02	24	III	TR.I
6	04	27	I	SH.E	15	04	01	IV	SH.I	22	03	14	II	OC.R	29	03	36	I	TR.I
11	03	45	III	OC.D	18	03	12	III	EC.D	22	03	54	I	TR.E	29	04	36	I	SH.E
13	03	24	II	SH.E	20	03	14	II	SH.I	28	05	04	I	EC.D	29	05	34	III	TR.E
13	04	07	I	SH.I	20	05	39	II	TR.I	29	02	22	I	SH.I	30	03	06	I	OC.R
13	05	14	I	TR.I															

ΟΚΤΩΒΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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6	03	08	II	EC.D	15	01	53	I	TR.I	22	02	57	II	SH.I	29	04	23	I	SH.I
6	04	15	I	SH.I	15	02	50	I	SH.E	22	03	46	I	TR.I	29	05	33	II	SH.I
6	04	24	III	SH.E	15	02	58	II	TR.I	22	04	43	I	SH.E	29	05	37	I	TR.I
6	05	31	I	TR.I	15	03	08	II	SH.E	22	05	34	II	TR.I	30	00	37	I	EC.D
7	05	02	I	OC.R	15	04	07	I	TR.E	22	05	45	II	SH.E	30	04	10	I	OC.R
8	02	13	I	TR.E	15	05	48	II	TR.E	22	06	00	I	TR.E	31	00	05	I	SH.E
8	03	11	II	TR.E	16	01	25	I	OC.R	23	03	18	I	OC.R	31	01	20	I	TR.E
10	05	07	IV	EC.D	17	03	37	III	OC.R	24	02	12	III	EC.R	31	02	03	III	EC.D
13	05	21	III	SH.I	19	04	01	IV	TR.I	24	02	53	II	OC.R	31	04	23	II	OC.R
13	05	42	II	EC.D	21	05	14	I	EC.D	24	04	17	III	OC.D	31	05	12	III	EC.R
14	03	20	I	EC.D	22	02	30	I	SH.I	27	02	24	IV	EC.R					

ΝΟΕΜΒΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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4	00	25	III	TR.E	13	02	55	IV	OC.D	18	00	10	III	SH.I	23	04	29	II	SH.E
5	00	14	IV	TR.E	13	04	24	I	EC.D	18	03	19	III	SH.E	23	22	34	I	OC.R
5	05	16	I	SH.I	14	01	37	I	SH.I	18	04	33	III	TR.I	25	00	52	II	OC.R
6	02	30	I	EC.D	14	02	45	I	TR.I	21	02	57	IV	SH.I	25	04	08	III	SH.I
6	23	44	I	SH.I	14	03	52	I	SH.E	21	03	30	I	SH.I	28	05	24	I	SH.I
7	00	55	I	TR.I	14	04	11	II	EC.D	21	04	33	I	TR.I	28	21	47	III	OC.D
7	01	38	II	EC.D	14	05	00	I	TR.E	22	00	47	I	EC.D	29	01	06	III	OC.R
7	01	58	I	SH.E	14	22	53	I	EC.D	22	04	07	I	OC.R	29	02	41	I	EC.D
7	03	10	I	TR.E	15	02	19	I	OC.R	22	21	59	I	SH.I	29	22	47	IV	OC.R
8	00	29	I	OC.R	15	23	04	II	SH.I	22	23	00	I	TR.I	29	23	52	I	SH.I
8	23	17	II	SH.E	15	23	27	I	TR.E	23	00	13	I	SH.E	30	00	47	I	TR.I
9	01	44	II	TR.E	16	01	20	II	TR.I	23	01	15	I	TR.E	30	02	07	I	SH.E
10	23	19	III	SH.E	16	01	53	II	SH.E	23	01	40	II	SH.I	30	03	02	I	TR.E
11	00	53	III	TR.I	16	04	11	II	TR.E	23	03	45	II	TR.I	30	04	16	II	SH.I
11	04	09	III	TR.E	17	22	29	II	OC.R										

ΔΕΚΕΜΒΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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1	00	21	I	OC.R	8	23	15	I	TR.E	17	23	55	II	TR.I	25	01	22	II	SH.I
1	21	29	I	TR.E	9	01	09	II	EC.D	18	01	36	II	SH.E	25	02	11	II	TR.I
1	22	35	II	EC.D	9	05	30	II	OC.R	18	02	47	II	TR.E	25	04	13	II	SH.E
2	03	12	II	OC.R	10	21	38	II	TR.I	19	20	54	II	OC.R	25	05	03	II	TR.E
3	22	09	II	TR.E	10	23	00	II	SH.E	20	05	54	III	EC.D	26	19	35	II	EC.D
5	21	56	III	EC.D	11	00	29	II	TR.E	21	05	32	I	SH.I	26	23	09	II	OC.R
6	01	09	III	EC.R	13	01	55	III	EC.D	22	02	51	I	EC.D	29	04	46	I	EC.D
6	01	14	III	OC.D	14	03	39	I	SH.I	22	05	37	I	OC.R	30	01	54	I	SH.I
6	04	34	III	OC.R	14	04	18	I	TR.I	23	00	01	I	SH.I	30	02	11	I	TR.I
6	04	35	I	EC.D	14	05	54	I	SH.E	23	00	28	I	TR.I	30	04	10	I	SH.E
7	01	45	I	SH.I	15	00	57	I	EC.D	23	02	16	I	SH.E	30	04	28	I	TR.E
7	02	33	I	TR.I	15	03	53	I	OC.R	23	02	44	I	TR.E	30	23	14	I	EC.D
7	04	00	I	SH.E	15	22	07	I	SH.I	23	20	01	III	SH.I	30	23	59	III	SH.I
7	04	48	I	TR.E	15	22	44	I	TR.I	23	21	20	I	EC.D	31	01	02	III	TR.I
7	20	55	IV	SH.I	16	00	23	I	SH.E	23	21	45	III	TR.I	31	01	47	I	OC.R
7	23	03	I	EC.D	16	00	59	I	TR.E	23	23	15	III	SH.E	31	03	15	III	SH.E
8	00	33	IV	SH.E	16	03	43	II	EC.D	24	00	03	I	OC.R	31	04	19	III	TR.E
8	02	07	I	OC.R	16	04	04	IV	EC.D	24	01	03	III	TR.E	31	20	23	I	SH.I
8	04	10	IV	TR.I	16	21	44	III	TR.E	24	20	45	I	SH.E	31	20	37	I	TR.I
8	20	59	I	TR.I	16	22	19	I	OC.R	24	21	10	I	TR.E	31	22	39	I	SH.E
8	22	29	I	SH.E	17	22	46	II	SH.I	24	22	42	IV	TR.E	31	22	53	I	TR.E

ΙΑΝΟΥΑΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
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1	03	58	II	SH.I	9	19	02	I	SH.E	17	21	04	III	OC.D	25	00	20	III	OC.D
1	04	26	II	TR.I	9	19	03	I	TR.E	18	01	09	III	EC.R	25	05	09	III	EC.R
1	20	13	I	OC.R	10	00	45	II	EC.D	18	20	05	IV	EC.R	26	00	18	II	TR.I
1	22	05	IV	EC.D	10	03	36	II	OC.R	18	22	03	II	TR.I	26	01	05	II	SH.I
2	04	02	IV	OC.R	10	21	09	III	EC.R	18	22	29	II	SH.I	26	03	09	II	TR.E
2	22	10	II	EC.D	11	19	48	II	TR.I	19	00	54	II	TR.E	26	03	56	II	SH.E

3	01	23	II	OC.R	11	19	53	II	SH.I	19	01	20	II	SH.E	26	23	04	IV	TR.I
4	20	08	II	SH.E	11	22	39	II	TR.E	20	19	29	II	EC.R	27	02	57	IV	SH.I
4	20	25	II	TR.E	11	22	44	II	SH.E	21	04	41	I	OC.D	27	02	57	IV	TR.E
6	03	48	I	SH.I	13	05	38	I	TR.I	22	01	48	I	TR.I	27	22	05	II	EC.R
6	03	55	I	TR.I	13	05	43	I	SH.I	22	02	06	I	SH.I	28	19	15	III	SH.E
6	06	05	I	SH.E	14	02	57	I	OC.D	22	04	04	I	TR.E	29	03	32	I	TR.I
7	01	09	I	EC.D	14	05	20	I	EC.R	22	04	22	I	SH.E	29	04	00	I	SH.I
7	03	30	I	OC.R	15	00	04	I	TR.I	22	23	07	I	OC.D	30	00	52	I	OC.D
7	03	58	III	SH.I	15	00	11	I	SH.I	23	01	43	I	EC.R	30	03	38	I	EC.R
7	04	18	III	TR.I	15	02	20	I	TR.E	23	20	14	I	TR.I	30	21	59	I	TR.I
7	22	17	I	SH.I	15	02	27	I	SH.E	23	20	34	I	SH.I	30	22	29	I	SH.I
7	22	21	I	TR.I	15	21	23	I	OC.D	23	22	30	I	TR.E	31	00	15	I	TR.E
8	00	33	I	SH.E	15	23	48	I	EC.R	23	22	51	I	SH.E	31	00	45	I	SH.E
8	00	37	I	TR.E	16	20	46	I	TR.E	24	05	14	II	OC.D	31	19	18	I	OC.D
8	19	37	I	EC.D	16	20	56	I	SH.E	24	20	12	I	EC.R	31	22	06	I	EC.R
8	21	56	I	OC.R	17	03	00	II	OC.D										

ΦΕΒΡΟΥΑΡΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
1	03	39	III	OC.D	7	21	04	I	OC.D	14	01	31	I	TR.I	19	23	12	II	TR.E
2	02	34	II	TR.I	8	00	01	I	EC.R	14	02	18	I	SH.I	20	01	02	II	SH.E
2	03	41	II	SH.I	8	20	27	I	TR.E	14	03	46	I	TR.E	20	23	25	IV	OC.R
3	20	38	II	OC.D	8	21	09	I	SH.E	14	22	50	I	OC.D	21	03	18	I	TR.I
4	00	41	II	EC.R	10	22	56	II	OC.D	15	01	56	I	EC.R	22	00	38	I	OC.D
4	04	28	IV	OC.D	11	03	18	II	EC.R	15	19	57	I	TR.I	22	21	11	III	EC.R
4	19	55	III	SH.I	11	20	51	III	TR.I	15	20	47	I	SH.I	22	21	45	I	TR.I
4	20	44	III	TR.E	11	23	54	III	SH.I	15	22	13	I	TR.E	22	22	42	I	SH.I
4	23	15	III	SH.E	12	00	07	III	TR.E	15	23	04	I	SH.E	23	00	01	I	TR.E
5	19	50	II	SH.E	12	03	14	III	SH.E	16	20	25	I	EC.R	23	00	59	I	SH.E
6	02	37	I	OC.D	12	19	35	II	SH.I	18	01	16	II	OC.D	23	22	20	I	EC.R
6	23	44	I	TR.I	12	20	52	II	TR.E	19	00	19	III	TR.I	26	22	46	II	TR.I
7	00	24	I	SH.I	12	20	59	IV	SH.I	19	03	34	III	TR.E	27	00	48	II	SH.I
7	02	00	I	TR.E	12	22	26	II	SH.E	19	20	23	II	TR.I	27	01	35	II	TR.E
7	02	40	I	SH.E	13	01	04	IV	SH.E	19	22	11	II	SH.I	28	21	50	II	EC.R

ΜΑΡΤΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
1	02	26	I	OC.D	8	21	10	III	OC.D	16	22	07	II	SH.E	24	00	43	II	SH.E
1	20	49	III	OC.R	9	00	28	III	OC.R	17	00	35	I	OC.D	24	23	37	I	TR.I
1	21	48	III	EC.D	9	01	25	I	TR.I	17	21	40	IV	TR.I	25	00	52	I	SH.I
1	23	34	I	TR.I	9	01	47	III	EC.D	17	21	44	I	TR.I	25	20	56	I	OC.D
2	00	37	I	SH.I	9	22	15	IV	EC.D	17	22	57	I	SH.I	26	00	29	I	EC.R
2	01	11	III	EC.R	9	22	44	I	OC.D	18	00	00	I	TR.E	26	20	21	I	TR.E
2	01	50	I	TR.E	10	02	10	I	EC.R	18	01	13	I	SH.E	26	20	39	IV	EC.R
2	02	54	I	SH.E	10	19	52	I	TR.I	18	01	34	IV	TR.E	26	21	37	I	SH.E
2	20	54	I	OC.D	10	21	02	I	SH.I	18	22	34	I	EC.R	26	22	05	III	TR.E
3	00	15	I	EC.R	10	22	08	I	TR.E	19	23	16	III	SH.E	26	23	53	III	SH.I
3	20	17	I	TR.E	10	23	18	I	SH.E	22	00	18	II	OC.D	30	22	57	II	TR.I
3	21	22	I	SH.E	11	20	39	I	EC.R	23	21	53	II	SH.I	31	01	29	II	SH.I
6	01	11	II	TR.I	14	21	46	II	OC.D	23	22	13	II	TR.E	31	01	46	II	TR.E
8	00	28	II	EC.R	16	00	54	III	OC.D										

ΑΠΡΙΛΙΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
1	22	40	II	EC.R	7	01	32	II	TR.I	15	22	25	II	OC.D	24	22	32	II	SH.I
1	23	50	I	OC.D	9	01	18	II	EC.R	17	00	52	I	TR.I	24	22	55	II	TR.E
2	22	17	I	SH.I	9	22	55	I	TR.I	17	22	10	I	OC.D	25	00	06	I	OC.D
2	23	16	I	TR.E	10	00	12	I	SH.I	17	22	47	II	SH.E	25	22	32	I	SH.I
2	23	44	III	TR.I	10	01	11	I	TR.E	18	21	37	I	TR.E	25	23	34	I	TR.E
3	00	33	I	SH.E	10	23	47	I	EC.R	18	22	53	I	SH.E	26	22	06	I	EC.R
3	21	52	I	EC.R	11	23	17	IV	OC.D	20	21	41	III	OC.D	28	22	08	IV	OC.R
6	22	14	III	EC.R	13	22	46	III	EC.D	20	22	11	IV	SH.I					

ΜΑΪΟΣ

H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ	H	ω	λ	Δ	Φ
1	22	47	II	TR.I	8	23	40	III	TR.E	17	22	43	II	OC.D	19	22	19	I	EC.R
2	23	16	I	TR.I	10	22	32	I	OC.D	18	22	47	I	SH.I	19	22	25	II	SH.E
3	22	32	II	EC.R	11	23	09	I	SH.E	19	22	15	III	EC.R	26	22	44	III	EC.D
4	00	01	I	EC.R															

Εξήγηση συμβόλων: H = ημέρα ω = ώρα (00-24) λ = λεπτά (00-59) Δ = δορυφόρος Φ = τύπος φαινομένου
I: Ιώ TR.I: Transit Ingress/Εναρξη Διάβασης OC.D: Occultation Disappears/Εναρξη Απόκρυψης
II: Ευρώπη TR.E: Transit Egress/Τέλος Διάβασης OC.R: Occultation Reappears/Τέλος Απόκρυψης
III: Γανυμήδης SH.I: Shadow Ingress/Είσοδος Σκιάς EC.D: Eclipse Disappears/Αρχή Έκλειψης
IV: Καλλιστώ SH.E: Shadow Egress/Έξοδος Σκιάς EC.R: Eclipse Reappears/Επανεμφάνιση από Έκλειψη