

Pseudo-Masha'allah
On the Astrolabe

Part III:
Lists of Stars

edited by

Ron B. Thomson

Version 1.5

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[TABULAE STELLARUM FIXARUM]

[LISTS OF FIXED STARS]

[Tabula 1]	2
[Tabula 1-A]	20
[Tabula 2]	26
[Tabula 3-A]	42
[Tabula 3-B]	47
Appendix I: Catalogue of Stars	53
Index of Variants	
– Arabic based	90
– Latin based	96
Appendix II: Other Lists of Stars	98

[Tabulae stellarum
fixarum]

[Lists of Fixed Stars]

[*Tabula 1*]¹

TABULA STELLARUM FIXARUM QUE PONUNTUR IN ASTROLABIO CUM GRADIBUS
QUIBUS CELUM MEDIANT ET CUM DISTANCIA EARUM AB EQUINOCTIALI LINEA.

Aα Bθ Cε Cη Cι Dη Eο Eπ Eτ Lε Mη Mo Pδ Pθ Pυ Qβ Qδ Σε Tδ Vπ Wα Wδ

- 1-2 *Title: om.* Eπ Σε que ... linea] astrolabii cum longitudine earum in signis et distancia
ab equinoctiali Eπ
- 1 fixarum] *om.* Cε Pυ Wα Wδ
- 2 quibus] *interlin* Cη celum] *om.* Pδ cum ... linea] per gradum longitudinis
earum et est gradus cum quo stella mediat celum et qui ponit eam in signo et per gradus
latitudinis earum qui est (*add.* earum Wδ) distancia ab equinoctiali Wα Wδ; *add. in bottom
marg.* Tabula stellarum fixarum que ponuntur in astrolabio per gradum longitudinis
earum et est gradus cum quo stella mediat celum et per gradus latitudinis earum et est
earum distancia ab equinoctiali Wα Wδ linea] *add.* g[radus], m[inuta] sint per caput
Arietis et Libre Mo; *add.* Nomina stellarum cum suis ymaginibus Cι; *add.* Nomina
stellarum cum suis ymaginibus in quibus sunt Pδ

¹ Contains 49 stars. Paul Kunitzsch, *Typen von Sternverzeichnissen in astronomischen Handschriften des zehnten bis vierzehnten Jahrhunderts* (Wiesbaden: Otto Harrassowitz, 1966), Typ VIII, mss a-i; pp. 51-58.

Because of the wide scattering of variants, no base ms has been used.

All copies of this star list are associated with Pseudo-Masha'allah's text, except in mss Eο and Wα where the lists are separate from the text; and in ms Eπ where there is no copy of the text. The astrolabe text in ms Σε is not that of Pseudo-Masha'allah.

[*LIST OF STARS 1*]

TABLE OF FIXED STARS WHICH ARE PLACED IN AN ASTROLABE,
WITH DEGREES WHICH MEDIATES THE SKY, AND WITH THEIR DISTANCES
FROM THE [CELESTIAL] EQUATORIAL CIRCLE.

Signa	Nomina stellarum	Ymagines	Longitudo g~ m~ ²	Lati- tudo g~ m~	Pars lati- tudinis
ARIES					
5	[β And] Mirach [ζ Cet] Batenkaytoz		7° 0' ³ 18° 30'	32° 30' ⁴ 13° 30'	sept. ⁵ merid.
3	signa] <i>om.</i> Cε Σε Wα Wδ; nomina signorum Bθ Cη Cι Lε Mη Pδ Pθ Qβ Tδ Vπ nomina stellarum] <i>om.</i> Eπ Eτ Pθ Wα Wδ; <i>twice</i> Tδ; stella Aα; stelle Cι Dη Eο Mη; nomina vetera Σε ⁶ ; <i>add.</i> cum suis ymaginibus Qβ Pυ Vπ; <i>add.</i> fixarum Dη; <i>add.</i> stelle Pυ Qδ Vπ ymagines] <i>om.</i> Mo Wα Wδ; <i>add.</i> cum ymaginibus Eπ Eτ; <i>add.</i> cum suis ymaginibus Bθ Cε Dη Lε Mη Pθ Qδ Tδ; <i>add.</i> earum Pδ; <i>add.</i> stellarum Cη Σε; <i>add.</i> stellarum sint hoc Qβ longitudo g~ m~] <i>om.</i> Cε; longitudo stelle Pδ; longitudo stellarum g~ m~ Aα Bθ Cι Eο Pυ Qδ Vπ latitudo g~ m~] <i>om.</i> Cε; latitudo earum g~ m~ Aα Bθ Cι Eο Pδ Pυ Qδ Vπ; <i>add.</i> profunditas in signo id est declinatio Wα Wδ Pars latitudinis] <i>om.</i> Cε; pars Eπ; <i>add.</i> est hec Cη; <i>add.</i> stellarum Lε Pδ Tδ; <i>add.</i> stelle Pδ				
4	Aries] <i>om.</i> Cε Σε				
5	Mirach] Mirac Mo; Myrach Wδ 7 0] 0 7 Cη 32 30] 14 30 Dη; 22 30 Wα Wδ; 30 30Aα				
6	Batenkaytoz] Batekaytoz Dη; Batencathoz Cε; Batenkaatoz Qδ; Batenkaitoz Aα Pθ Pυ; Batenkartoz Eο; Batenkaytor Tδ; Bathebiro Σε; Bathekaidoz Bθ; Bathekardoz Vπ; Bathenkaythoz Cι; Bathenkaytoz Pδ Mη Wα Wδ; Futekaytoz Dη; <i>add.</i> finis fluxus Eπ 18 30] 16 30 Eπ; 18 0 Eο 13 30] <i>om.</i> Aα; 10 30 Eπ; 13 0 Eο merid.] <i>om.</i> Cε ⁷				

² Nearly all mss use abbreviations here, for *gradus* and *minuta* (degree and minute). For clarity I have added the modern degrees and minutes signs to the text, although in the originals there are just numbers.

³ In some mss (especially Aα) the “0” is omitted from the *minuta* column; i.e., the space is blank. No effort has been made to record this practice in detail, especially when some manuscripts sometimes have the “0” and sometimes a blank. In ms Wα the latitude minutes are repeated (for most stars) in a fifth column of numbers. They are listed here only where the two columns of minutes differ.

⁴ From Mirach to Alderan, the list of latitudes and *pars* in ms Pδ has shifted one entry lower, e.g. Mirach’s latitude and *pars* are on the line for Batenkaytoz.

⁵ Since most mss abbreviate *septentrionalis* and *meridionalis*, I have done so as well.

⁶ Ms Σε adds a second column of names, entitled “Nova nomina stellarum ...”, which has been omitted from this edition.

⁷ In ms Cε only *septentrionalis* is noted in this column; all *meridionalis* notations are omitted.

Signs	Names of the stars	Images	Longitude ⁸ ° / ′	Latitude ⁹ ° / ′	Part of the latitude ¹⁰
ARIES					
[β And]	Mirach		7° 0′	32° 30′	N
[ζ Cet]	Baten Kaitos ¹¹		18° 30′	13° 30′	S

⁸ Mediation.

⁹ Declination

¹⁰ This column indicates whether a star is north (*septentrionalis*) or south (*meridionalis*) of the celestial equator. In modern notation this is usually indicated by a plus or minus sign.

¹¹ Batenkaytoz/Baten Kaitos and Pantakaitoz are long-standing duplicates. See Appendix I (ζ Cet).

	[ζ Cet]	Pantakaitoz	venter ceti	20° 0'	14° 0'	merid.
	[α Ari]	Enif		22° 0'	23° 30'	sept.
	[θ Eri]	Finis fluxus		25° 0'	4° 30'	merid.
10	TAURUS					
	[α Cet]	Menkar	naris ceti	6° 0'	1° 0'	sept.
	[α Per]	Algenib	frons Algonis	10° 0'	49° 0'	sept.
	[τ ² Eri]	Algetenar		22° 0'	16° 0'	merid.
	[α Tau]	Aldebaran	oculus vel cor Tauri	29° 0'	14° 30'	sept.
7	Pantakaitoz] <i>entry om.</i> Eπ; Pancildaicon Σε; Pantacaitoz Αα; Pantacay Qβ; Pantacaytoz Pυ; Pantakaastoz Qδ; Pantakaytor Tδ; Pantanc[ay]ta Mν; Panthakaythoz Cι; Panthakaytor Wδ; Panthakaytoz Mη Pδ Wα; Patencacaytoz Cε; Paucartartoz Eο; Enif Patacaidoz ¹² Bθ Vπ venter ceti] <i>om.</i> Cε ceti] cethi <i>some</i> ; cethy Qβ; 14 0] <i>om.</i> Αα; 14 30 Bθ Qδ Vπ merid.] <i>om.</i> Cε					
8	Enif] <i>om.</i> Bθ; Enit Cι; Enyf Wα Wδ; Eruf Σε 22 0] 22 32 Αα 23 30] <i>om.</i> Αα; 22 30 Cε; 32 0 Eο; 32 30 Bθ Cι Dη Eτ Mη Mo Pδ Pυ Qδ Σε Wα Wδ Vπ					
9	fluxus] fuxus Dη 25 0] 25 4 Αα 4 30] 30 30 Αα merid.] <i>om.</i> Cε; australis Wα Wδ					
10	Taurus] <i>om.</i> Cε Σε					
11	Menkar] Menchar Cε Qδ; Menkach Eο; Menkath Bθ Vπ; Mentrar Σε ceti] ceci Bθ Qδ; cethi <i>some</i> ; naris cethy Wα Wδ 6 0] 6 1 Αα 1 0] 0 0 Αα					
12	Algenib] Algeb Bθ Vπ; Algenb Αα Cε Eο Pυ; Algerab Σε; Algon Eπ; Algonib Eτ; Augenib Mη frons Algonis] caput Algonis Eπ; frons Angonis Eο 10 0] 10 49 Αα; 11 0 Bθ Vπ 49 0] <i>om.</i> Αα; 1 0 Σε; 42 0 Eπ					
13	Algetenar] Algetenor Eπ; Angetenar Eο Wα Wδ Vπ; Augetena Pδ; Augetenar Αα Bθ Cι Mη Mo Pυ Qδ; Augetonar Eτ; Auguthanar Cε 22 0] 22 16 Αα 16 0] 0 0 Αα; 6 0 Σε merid.] <i>om.</i> Cε; australis Wα Wδ					
14	Aldebaran] Aldebaram Σε oculus vel cor Tauri] cor Tauri Eπ vel] <i>om.</i> Σε Tauri] Thauri Wα Wδ					

¹² Beginning with the conflation of Enif and Pantekaitoz, the lists in mss Bθ and Vπ give the image name, the coordinates, and the “pars” of the previous entry.

[ζ Cet]	Pantakaitoz	belly of the Whale	20° 0'	14° 0'	S
[α Ari]	Enif ¹³		22° 0'	23° 30'	N
[θ Eri]	“End of the flowing” ¹⁴		25° 0'	4° 30'	S
TAURUS					
[α Cet]	Menkar	nose of the Whale	6° 0'	1° 0'	N
[α Per]	Algenib ¹⁵	forehead of Algon ¹⁶	10° 0'	49° 0'	N
[τ ² Eri]	Angetenar		22° 0'	16° 0'	S
[α Tau]	Aldebaran	eye or heart of Taurus	29° 0'	14° 30'	N

¹³ Usually known as “Hamal”; see Appendix I (α Ari).

¹⁴ Known as “Acamar”. The sense of the name is “the end of the river Eridanus.” See Appendix I (θ Eri).

¹⁵ Now “Mirfak”.

¹⁶ Perseus? See Appendix I (α Per).

15 GEMINI

[α Aur]	Alhaioh	hircus vel humerus agitatoris	6° 0'	45° 0'	sept.
[β Ori]	Rigil	pes Orionis	11° 0'	10° 0'	merid.
[α Ori]	Algeuze	humerus dexter Orionis	15° 0'	8° 0'	sept.

CANCER

20	[α CMa]	Alhabor	in ore canis meridionalis	3° 0'	15° 0' ¹⁷	merid.
	[α Gem]	Razalgeuze	capud geminorum	9° 0'	33° 0'	sept.
	[α CMi]	Algomeiza	in collo canis septentrionalis	13° 0'	7° 0'	sept.

15 Gemini] *om.* Cε Σε

16 Alhaioh] Albaioth Vπ; Alhaiot Mo Qδ; Alhaioth Aα Bθ Cι Pυ Qβ; Alharoch Σε; Alhayeth Lε Tδ; Alhayoth Dη Eπ Wα Wδ hircus ... agitatoris] humerus Sagittarii Σε; humerus sinister Eπ(*add. interlin. vel hircus*) hircus] hyrcus Cη Lε agitatoris] sagittatoris Cη Lε Pθ Qβ Tδ Wα Wδ 45 0] *illeg.* Mη; 36 0 Aα; 44 0 Dη; 45 0 *corr. to* 26 0 Vπ; 45 0 *corr. to* 36 0 Mo Pυ; 45 0 *corr. to* 46 0 Pθ; 65 0 Lε Tδ

17 Rigil] Richel Σε; Rigel Eτ; Rigial Lε Tδ; Rygel Cε; Rygyl Wα Wδ 10 0] [*eras.*] 0 Pδ
merid.] *om.* Cε; australis Wα

18 *Entry in marg.* Mo Algeuze] Algente Eo Vπ; Algenze Cε Tδ; Algeuse Eπ Σε; Elgeuse Mo humerus ... Orionis] humerus eius dexter Eπ Σε 15 0]14 0 Mo 8 0] 6 0 Eπ; 7 0 Aα Eτ Lε Mo Tδ; 8 0 *corr. to* 7 0 Eo Pυ

19 *Repeat title and column headings (lines 1-3)* Pυ Cancer] *om.* Cε Σε

20 Alhabor] Albabor Vπ in ... meridionalis] os canis Eπ ore] hore Aα Bθ Cε Pυ
Vπ meridionalis] *om.* Dη 15 0] 15 30 Eπ merid.] *om.* Cε; australis Wα Wδ

21 Razalgeuze] Bazalgenze Cε; Bazalgeuze Cη; Bazilgeuse Mo; Racalgenze Vπ; Rafaligence Σε; Ragalgeuze Qδ; Razagenze Aα Cι Eπ Eτ Tδ; Razalevze Wα Wδ; Rozangente Eo
33 0] 3 0 Lε Qβ Tδ; 23 0 Aα; 32 0 Σε sept.] merid. Mη(*corr. in marg. to sept.*)

22 Algomeiza] Algamensa Σε; Algomeira Pθ; Algomeisa Eτ; Algomeyza Cη Wα Wδ;
Alsehre Eπ in ... septentrionalis] intellectus Σε in collo] collum
Eπ septentrionalis] *om.* Cη Dη Eπ Lε Qβ Tδ

¹⁷ Because Algeuze was originally skipped in ms Mo, the latitudes for the subsequent stars listed in ms Mo have slipped one place, i.e., Alhabor's latitude is given as 8 0 septentrionalis, and Bezelgeuze is given as 15 0 meridionalis, and so on. Ms Mo rectifies itself after Algorab.

GEMINI

[α Aur]	Capella	he-goat ¹⁸ or shoulder of the charioteer ¹⁹	6° 0'	45° 0'	N
[β Ori]	Rigel	the foot of Orion	11° 0'	10° 0'	S
[α Ori]	Betelgeuse	the right shoulder of Orion	15° 0'	8° 0'	N

CANCER

[α CMa]	Sirius	in the mouth of the southern dog ²⁰	3° 0'	15° 0'	S
[α Gem]	Castor	a head of the twins	9° 0'	33° 0'	N
[α CMi]	Algomeiza ²¹	in the neck of the northern dog ²²	13° 0'	7° 0'	N

¹⁸ But traditionally it is “she-goat,” hence its common name, “Capella”.

¹⁹ Or simply “driver.”

²⁰ The “southern dog” would be the constellation Canis Maior.

²¹ Also known as “Procyon”.

²² Canis Minor.

	[q Pup]	Markep		21° 0'	22° 30'	merid.
	[ι UMa]	Egregez		24° 0'	45° 0'	sept.
25	LEO					
	[]	Aldiran	in fronte leonis	6° 0'	6° 0'	merid.
	[α Hya]	Alfart	equus vel singularis	13° 0'	18° 30'	merid.
	[α Leo]	Cabalezed	cor leonis	20° 0'	15° 0'	sept.
	[θ UMa]	Alrucaba	ursa	20° 0'	35° 0'	sept.
30	VIRGO					
	[]	Coruus		1° 0'	11° 30'	merid.
	[α UMa]	Dubhe	id est ursa	2° 0'	67° 0'	sept.
23	Markep]	Marchep Qδ; Markel Eo	21 0] 22 0 Cη Eπ	merid.]	om. Cε; australis	
		Wα Wδ; sept. Mη	(corr. in marg. to merid.)	add. Leo Eπ Lε		
24	Egregez]	Eggreguz Eτ; Egreger Pθ; Egreges Σε; add. capud Pollucis Eτ	24 0] 34 0 Cη	sept.] merid. Mη	(corr. in marg. to sept.)	
25	Leo]	om. CεSε				
26	Aldiran]	Aldiram Eo; Alduam Σε; Aldyran Wα Wδ	in ... leonis]	frons leonis Eπ		
		6 0 ₂] om. Pδ	merid.] om. Cε; sept. Mη	(corr. in marg. to merid.)	Wα Wδ	
27	Alfart]	Alfarat Eτ; Alfarth Cε Dη Mη Pυ Qδ Wα Wδ; Arfart Eπ	equus ... singularis]	cg ^{us} vel angulus angulorum Σε	singularis] cignus Dη; cingl'us Mo Qδ ; cingnius Lε	
		Tδ; cingulus Cη Eπ Pδ Pθ Qβ; sigla'ru ^t Cε; singlus Eτ; singul'r Aα Bθ Eo Mη; singul'r	cingulus Wα Wδ	13 0] 9 0 Aα Eτ Lε Tδ; 13 0 corr. to 9 0 Mη	18 30] 15 0 Tδ; 15 30	
		Aα Eτ; 15 30 corr. to 16 30 Eo; 16 0 Lε; 16 30 Dη; 18 0 Qδ; 18 0 corr. to 15 30 Bθ Pυ Vπ;	18 30 corr. to 15 30 Mη	merid.] om. Cε; australis Wα Wδ; sept. Mη	(corr. in marg. to merid.)	
28	Cabalezed]	Calbalezath Cι; Calbalezed Bθ Dη Vπ; Calbalezet Cε Pδ Wα Wδ; Calbalezeth	Eπ; Calbeleleret corr. to Cabeleret Pθ; Colbalerech Σε	20 0] 18 0 Eπ	15 0] 16 0	
		corr. to 15 0 Eo	sept.] merid. Mη	(corr. in marg. to sept.)		
29	Alrucaba]	Affachaba Σε; Alrubaba Eτ; Alruchaba Qδ; Alrucaba Mo; Alrukaba Cι Dη Eπ	Qβ; Alrukalu Lε Tδ; Altucaba Aα Bθ	ursa] cor leonis ursa Pδ	35 0] 25 0 Tδ;	
		35 30 Dη; 35 30 corr. to 35 0 Wα	sept.] merid. Mη	(corr. in marg. to sept.)		
30	Virgo]	om. Cε Σε				
31	11 30]	11 0 Cη; 39 30 corr. to 11 30 Eo	merid.] om. Cε; australis Wα Wδ; sept. Eπ			
		Mη	(corr. in marg. to merid.)			
32	Dubhe]	Dulhe Σε	id est ursa] Ursa Dη	67 0] 6 0 Cη; 16 0 Qδ		

[ρ Pup]	Markep		21° 0'	22° 30'	S
[ι UMa]	Egregez ²³		24° 0'	45° 0'	N

LEO

[ζ] ²⁴	Aldiran	in the forehead of the lion	6° 0'	6° 0'	S
[α Hya]	Alfard	horse ²⁵ or solitary one	13° 0'	18° 30'	S
[α Leo]	Cabalezed ²⁶	heart of the lion	20° 0'	15° 0'	N
[θ UMa]	Alrucaba	the [knee of the] bear	20° 0'	35° 0'	N

VIRGO

[ζ] ²⁷	Corvus		1° 0'	11° 30'	S
[α UMa]	Dubhe	that is, the bear	2° 0'	67° 0'	N

²³ Now known as “Talitha”.

²⁴ Kunitzsch suggests that this is a duplication of α Gem: Razalgeuze. See *Typen*, p. 57 (VIII-18 note).

²⁵ From the confusion between the Arabic for “solitary one” (*al-fard*) and for “horse” (*al-faras*).

²⁶ Later known as “Regulus”.

²⁷ Kunitzsch suggests that this is a duplication of γ Crv: Algorab. See *Typen*, p. 57 (VIII-22 note).

[β Leo]	Denebalezed	cauda leonis	15° 0'	19° 30'	sept.
[γ Crv]	Algorab	in centauro	22° 0'	13° 30'	merid.

35 LIBRA

[α Vir]	Alchimeth	inermis	10° 0'	7° 0'	merid.
[ηUMa]	Bennenaz	filie feretri in themone	9° 0'	53° 0'	sept.
[α Boo]	Alrameth	lanceator	27° 0'	24° 0'	sept.

33 Denebalezed] Denabalezet Qδ; Denebakeyzech Dη; Denebalazed Eπ; Deneb[*illeg.*]zed Eτ; Denebalerod Mη; Denebalezech Dη; Denebalezet Cε Pδ Wα Wδ; Denebalezeth Pθ; Denebazeleth Σε; Denebolezad Cι; Deuebalezzech Lε Tδ 19 30] 11 30 Eπ; 19 0 Σε; 19 0 30 Wα; *corr. from* 19 130 Aα; 67 30 *corr. to* 19 30 Eo

34 Algorab] Alborap corvus Wα Wδ; Algorab cori Lε Tδ; Algorab corvus Bθ Cε Dη Eπ Eτ Mη Pθ Qβ Vπ; Algoraba corvus Pδ; Algorach Σε; Corvus algorab Aα; *add. interlin* corvus Pυ in centauro] corvus intentus Σε; in centaureo Bθ; in centhauro Wα Wδ 22 0] 20 0 Cι; 23 0 Σε 13 30] 13 0 30 Wα merid.] *om* Cε; australis Wα Wδ; sept. Mη(*corr. in marg. to* merid.)

35 *add.* Secunda pars tabule stellarum fixarum que ponuntur in astrolabio, cum gradibus quibus celum medeant et cum distancia earum ab equinoctiali circulo | Nomina stellarum fixarum cum suis ymaginibus | Signa \ ymaginibus \ longitudo g~ m~ \ latitudo g~ m~ \ pars latitudinis Dη; *add.* Tabula stellarum que ponuntur in astrolabio et cum sicut est in precedenti | Nomina stellarum cum suis ymaginibus \ longitudo g~ m~ \ [latitudo] stellarum g~ m~ \ pars latitudinis | Signa \ stelle \ ymaginis Aα *Repeat title and column headings (lines 1-3)* Qβ(nomina stellarum; ymagines stellarum) Libra] *om.* Cε Σε

36 Alchimeth] Alchimech Bθ Cι Dη Lε Tδ; Alchimet Cη; Alchiniech Eo; Alchymech Wα; Alchymeth Wδ inermis] in hermis Cη; motuus Aα 10 0] 12 0 Eπ merid.] *om.* Cε; australis Wα Wδ; sept. Mη(*corr. in marg. to* merid.)

37 Bennenaz] Bemenez Aα Bθ Eo Vπ; Benenez Σε; Beninenaz Cε; Benmenaz Pυ; Bennenar Tδ; Beynemanz Eπ filie ... themone] fily fert^o inchois Σε; venr' filie Eπ themone] temone Mo; tuemone Cι 9 0] 10 0 Vπ; 19 0 Aα Bθ Eo Mη Mo Pυ Σε Wα Wδ 53 0] 52 0 Σε; 53 30 *corr. to* 53 0 Mη

38 Alrameth] Alramech Σε; Alramech Cη Dη Lε Mo; Alremech Wα; Aramech Bθ Cι lanceator] laceator Aα; *add. interlin.* id est armatus Eπ 27 0] 19 0 *corr. to* 27 0 Aα; 24 0 Cι Pδ Σε Wα Wδ; 24 0 *corr. to* 17 0 Mo; 24 0 *corr. to* 27 0 Cε Mη Pυ; 27 0 *corr. to* 24 0 Eo; 28 0 *corr. to* 27 0 Bθ Vπ 24 0] 24 30 *corr. to* 24 0 Mη

[β Leo]	Denebola	the tail of the lion	15° 0'	19° 30'	N
[γ Crv]	Algorab ²⁸	in the centaur ²⁹		22° 0'	13° 30'S
LIBRA					
[α Vir]	Azimech ³⁰	unarmed ³¹	10° 0'	7° 0'	S
[ηUMa]	Benetnash ³²	daughters of the bier, along the shaft ³³	9° 0'	53° 0'	N
[α Boo]	Arcturus	the spear-man/lancer/ lance-carrier	27° 0'	24° 0'	N

²⁸ "Algorab" is now the official name of δ Crv.

²⁹ "In the centaur": it is possible that some of the Latin authors/copyists erred here, writing "in" instead of "super" or "supra", i.e., "above", because the crow/algorab is situated in the sky just above Hydra and above Centaurus. [PK]

³⁰ More commonly known as "Spica."

³¹ See Appendix I for the base meaning of "the Unarmed" for Azimech.

³² Also now known as "Alkaid".

³³ Of the seven stars forming the asterism known as "The Plough" or "The Big Dipper" or "The Great Wain", four form the plough itself, or the bowl of the dipper, or the wagon. The other 3 stars are along the shaft(s) of the plough or wagon, or the handle of the dipper. Benetnash is the last star along the shaft or pole (or handle), furthest from plough/wagon. In this Arabic image three maidens lined up along the shaft are pulling a bier through the heavens.

SCORPIO

40	[α CrB]	Alfeca	in corona Adriane	16° 0'	29° 0'	sept.
	[β Sco]	Alachil		17° 0'	14° 0'	sept.
	[δ Oph]	Yed		26° 0'	3° 0'	merid.
	[α Sco]	Calbalacrab	cor scorpii	27° 0'	23° 0'	merid.

SAGITTARIUS

45	[α Oph]	Alhaue	capud draconis	13° 0'	15° 0'	sept.
	[γ Dra]	Raztaben	capud serpentis	25° 0'	51° 0'	sept.

39 Scorpio] *om.* C ϵ S ϵ

40 Alfeca] Alfecha E π ; Alfeka W α W δ ; Alfeta D η P δ ; Alfita S ϵ ; Alpheca L ϵ Q β ; Alpheta T δ
in ... Adriane] *om.* S ϵ Adriane] ad'agne M η ; ad'agu^e A α P ν ; Ad'ag E π ; Adagn^e
B θ V π ; ad'arine C ϵ ; Aldagne Eo; Andriane P θ 16 0] 6 0 A α ; 10 *corr.* to 16 0 B θ V π ;
18 0 C ι P δ W α W δ ; 18 0 *corr.* to 16 0 C ϵ ; 19 0 E π P ν ; 24 0 *corr.* to 16 0 *corr.* to 18 0 Eo
29 0] 2 0 A α ; 19 0 E π ; 20 0 C η ; 20 0 *corr.* to 29 0 B θ ; 29 0 *corr.* to 31 0 C ϵ P θ P ν V π ;
30 0 *corr.* to 31 0 M η sept.] M M η (*corr.* in marg. to sept.)

41 Alachil] Alachyl W α W δ ; *add.* in corona S ϵ 17 0] 19 0 Mo S ϵ W α W δ ; 19 0 *corr.* to 17 0
B θ C ϵ M η P ν V π 14 0] 14 0 *corr.* to 15 0 C ϵ P θ P ν ; 15 0 A α L ϵ T δ ; 15 0 or 19 0 *corr.* to
14 0 M η ; 16 0 *corr.* to 27 0 *corr.* to 29 0 Eo; 19 0 W α ; 19 0 *corr.* to 15 0 B θ V π

42 Entry *om.* E π M η Yed] Yes S ϵ ; Yet Eo; *add.* capud draconis M η 26 0] 18 0 *corr.*
to 26 0 Eo 3 0] 2 0 B θ C ϵ D η M η Mo P δ P θ P ν Q δ S ϵ V π W α W δ merid.] *om.*
C ϵ ; australis W α W δ ; sept. M η (*corr.* in marg. to merid.)

43 Calbalacrab] Calbalacab C ϵ ; Calbalacral L ϵ T δ ; Calbalagrab E π ; Calbalatrap S ϵ cor
scorpii] *om.* S ϵ ; capud serpentis M η (*corr.* in marg. to vel cor scorpii) 27 0] *illeg.* *corr.*
to 27 0 M η ; 7 0 C ι 23 0] 22 0 C ϵ merid.] *om.* C ϵ ; australis W α W δ ; sept. M η (*corr.*
in marg. to merid.) S ϵ

44 Sagittarius] *om.* C ϵ S ϵ

45 Alhaue] Alchaue vel razalegue B θ V π ; Alhane vel razelegue P δ ; Alhant W δ ; Alharic S ϵ ;
add. scilicet mza A α ; *add.* vel razeage P θ ; *add.* vel razalage M η Q δ ; *add.* vel razalee L ϵ T δ ;
add. vel razalegne Mo; *add.* vel razalegua C ϵ ; *add.* vel razalegue Eo P ν W α W δ ; *add.*
interlin. [*illeg.*] E π capud draconis] vultur cadens M η (*corr.* in marg. to vel capud
draconis) 13 0] 14 0 C ι P δ S ϵ W α W δ ; 14 0 *corr.* to 13 0 B θ C ϵ Eo Mo P ν V π ; 18 0 E π
15 0] 15 0 *corr.* to 13 0 B θ Eo M η Mo P ν V π ; 15 0 *corr.* to 12 0 C ϵ ; 12 0 E τ L ϵ T δ ; 13 0
A α

46 Raztaben] *illeg.* C ϵ ; Batsaben S ϵ ; Baztaben L ϵ T δ ; Mzcalen A α ; Rahtaben C η ; Razaben D η ;
Razaraben V π ; Razazaben B θ ; Razcaben Eo E τ Q δ ; Razdaben E π M η capud
serpentis] Vultur volans M η (*corr.* in marg. to vel capud serpentis) 25 0] 28 0 E π
51 0] 42 0 E π ; 51 39 0 W α ; 52 0 C η S ϵ sept.] *om.* A α

SCORPIO

[α CrB]	Alphecca	in the crown of Ariadne ³⁴	16° 0'	29° 0'	N
[β Sco]	Alachi ³⁵		17° 0'	14° 0'	N
[δ Oph]	Yed [Prior]		26° 0'	3° 0'	S
[α Sco]	Calbalacrab ³⁶	the heart of the scorpion	27° 0'	23° 0'	S

SAGGITTARIUS

[α Oph]	Rasalhague ³⁷	the head of the dragon	13° 0'	15° 0'	N
[γ Dra]	Rastaben ³⁸	the head of the serpent	25° 0'	51° 0'	N

³⁴ I.e., the crown given by the god Dionysus to the Cretan princess Ariadne, daughter of King Minos, and set by Dionysus in the heavens.

³⁵ Also known as "Graffias."

³⁶ Better known as "Antares."

³⁷ I.e., Ra's al-hague, "head of the serpent collector."

³⁸ The name "Rastaben" has now been transferred to β Dra. γ Dra is now known as "Eltanin".

CAPRICORNUS

	[α Lyr]	Wega	vultur cadens	3° 0'	38° 0'	sept.
	[α Aql]	Altair	vultur volans	16° 0'	7° 0'	sept.
50	[ϵ Del]	Delfin		29° 30'	12° 39'	sept.
	[α Cyg]	Alrif	in cigno	29° 0'	42° 0'	sept.
	[α Cyg]	Addigege	cauda galline	30° 0'	43° 0'	sept.

AQUARIUS

	[δ Cap]	Libedeneb	cauda capri	6° 0'	22° 0'	merid.
55	[? Del]	Delfin	nubilior et orientior	10° 0'	6° 0'	sept
	[α Cep]	Aldiran		10° 0'	59° 0'	sept.

47 Capricornus] *om.* C ϵ S ϵ

48 Wega] Seg α S ϵ ; Vnega A α E α ; Vuega B θ P θ P δ P ν V π W α W δ ; Vuego Q δ vultur cadens] in cigno M η (*corr. in marg. to vultur cadens*); wultur cadens C ι 3 0] 30 0 E π sept.] *om.* A α E α

49 Altair] Alc α ir E τ ; Alch α ir A α B θ V π ; Altaich Q δ ; Altayr E π Q β ; Alth α ir C ϵ C ι M η P δ P θ P ν T δ ; Althayr L ϵ W α W δ ; Alcl α r S ϵ vultur volans] cauda galline M η (*corr. in marg. to vultur volens*); wultur volans C ι 16 0] 18 0 S ϵ 7 0] 7 25 M α sept.] *om.* A α

50 Delfin] Delfinus E π ; Delfyn W δ ; Delphin L ϵ S ϵ T δ ; *add.* cauda Capri M η ; *add.* in cigno P δ 29 30] 28 0 E π ; 29 0 A α M α P θ Q δ T δ V π W α W δ 12 39] 12 0 E π ; 12 0 30 W α ; 12 30 A α C ϵ E α E τ M α P ν S ϵ V π sept.] *om.* A α E α

51 Alrif] Astif E α in cigno] in agno C ϵ ; in signo C ι 29 0] 19 0 A α sept.] *om.* A α E α M η

52 *Entry om.* S ϵ Addigege] Addigge E τ ; Addygege W α ; Adigege A α B θ E α Q δ V π ; Aldigege E π galline] galine C ι 30 0] 20 0 E π 43 0] 41 0 C ϵ *add.* Signa / Nomina stellarum / longitudo g~ m~ / latitudo g~ m~ / pars E π

53 Aquarius] *om.* C ϵ S ϵ

54 Libedeneb] Libedenes C ϵ ; Libederneb E α ; Libedeydop S ϵ ; Lybedeneb W α W δ cauda capri] cauda capricorni S ϵ 6 0] *illeg.* C ι 22 0] 26 0 L ϵ T δ ; 22 0 *corr. to* 26 0 P θ merid.] australis W α W δ ; sept. C ϵ

55 Delfin] De E π ; Delfyn W δ nubilior et orientior] nubilsior et orientior E τ P δ ; nubiliosior et ori^{or} D η W α W δ ; nubiliosior et orientior S ϵ ; nubilozior et ori^{or} L ϵ ; oriens E π ; sinbiliosior [e]t orienta[li]or P θ 10 0] 19 0 C ι 6 0] 6 10 B θ ; 6 30 0 W α Repeat *ll.* 1-2 M η (*add.* longitudo g~ m~ | latitudo g~ m~ | pars latitudinis)

56 Aldiran] Adiran C ι ; Adria musidii pergesii S ϵ ; Aldira A α E τ M η P ν ; Aldria B θ V π ; Aldura E α ; Aldyran W α W δ 59 0] 50 0 A α

CAPRICORN

[α Lyr]	Vega	the falling vulture	3° 0'	38° 0'	N
[α Aql]	Altair	the flying vulture	16° 0'	7° 0'	N
[ϵ Del]	[Deneb] Dulfim		29° 30'	12° 39'	N
[α Cyg]	Alridf ³⁹	in the swan	29° 0'	42° 0'	N
[α Cyg]	Addigege ⁴⁰	the tail of the hen	30° 0'	43° 0'	N

AQUARIUS

[δ Cap]	Libedeneb ⁴¹	the tail of the [he-]goat	6° 0'	22° 0'	S
[? Del] ⁴²	Delfin	more clouded ⁴³ and more easterly	10° 0'	6° 0'	N
[α Cep]	Alderamin ⁴⁴		10° 0'	59° 0'	N

³⁹ Now known as “Deneb.”

⁴⁰ A duplication of Alrif (an expansion of the the name). See Appendix I: α Cyg

⁴¹ While Libedeneb is found many times in rete diagrams and also on actual astrolabes, it is a corruption in Latin of Denebalgedi (or Deneb Algedi). Sometimes Denebalgedi and Libedeneb are treated as two different stars, as in Kunitzsch, *Typen*, p. 46: VIII-40 (based on III-18) and VIII-44 (based on VI-35). The compiler of list VIII (i.e., this list) worked from at least two different sources and did not realize that he was dealing with the same star.

⁴² Kunitzsch (*Typen*, p. 58) suggests that this is a duplicate of ϵ Del, with quite different co-ordinates. See Appendix I (? Del), for a discussion of this second star named Delfin.

⁴³ Or “dimmer/fainter”.

⁴⁴ The Latin, “Aldiran”, copies the name of the star found in Leo, above.

[ε Peg]	Enifelferaz	musida ⁴⁵ equi Pegasi	13° 0'	7° 0'	sept.
[δ Cap]	Denebalgedi	cauda Capricorni	14° 0'	19° 39'	merid.
[δ Aqr]	Sceach	crus	30° 0'	19° 0'	merid.

60 PISCES

[β Peg]	Alferaz	in Pegaso	6° 0'	24° 0'	sept.
[β Peg]	Mentichel	humerus equi alati	18° 0'	25° 0'	sept.
[ι Cet]	Denebkaitoz	cauda ceti	22° 0'	10° 0'	merid.
[α Cas]	Sceder		18° 0'	53° 0'	sept.

- 57 Enifelferaz] Cmfelferaz Pθ; Emfalferaz Aα Bθ Pυ Vπ; Emfelferaz Cι; Emphalferaz Qδ; Enfalferaz Mη; Enfelfora Σε; Enifalfar Tδ; Enifalfat Cε; Enifasfaz Eο; Enifelfarin Eπ; Enifelfaz Qβ musida equi pegasi] *om.* Σε musida] muscida Wα Wδ Pegasi] *om.* Eπ; pesagi Cη Eτ Lε Pθ Tδ Qβ sept.] merid. Mη(*corr. in marg. to sept.*)
- 58 Denebalgedi] Denebagedi Cε; Denebalgedy Wα Wδ; Denenalgedi Σε cauda Capricorni] *om.* Mo; cauda corporis Eπ 19 39] 19 0 Eπ Mo; 19 0 39 Wα; 19 30 Aα Σε merid.] *om.* Cε; australis Wα Wδ
- 59 Sceach] Sceath Eτ Cι; Scezich Aα; Schath Cε Steach Wα Wδ; *add.* id est Aα Bθ Dη Eπ Lε Pδ Pθ Pυ Qβ Vπ crus] id est cruz Eτ Mo 30 0] 3 0 Qδ 19 0] 10 0 Eπ; 19 39 Mo merid.] *om.* Cε; australis Wα Wδ; sept. Mη(*corr. in marg. to merid.*)
- 60 Repeat title (*om.* quibus) and column headings (*add.* fixarum) (*lines* 1-3) Pθ Pisces] *om.* Cε Σε
- 61 Alferaz] Alfat Cε; Alfaz~ Eο; Alferach Mη; Alferam Eπ; Alferan Σε Pegaso] gesago Eτ; pesago Cη Eο Eπ Lε Mo Pθ Qβ Qδ Σε Tδ 24 0] 34 0 Eπ
- 62 Mentichel] Menachil Σε; Menchel Eο Pυ; Menthel Mo; Mentichil Cι Dη Eπ Mη Pθ Qβ; Mentichyl Wα Wδ; Mentithil Pδ Tδ; Humerus equi alati Aα Bθ Qδ Vπ humerus equi alati] *om.* Σε; mechel Bθ Vπ; menchel Qδ; menthel Aα alati] *om.* Eπ; alfati Dη 25 0] 24 0 Bθ sept.] merid. Mη(*corr. in marg. to sept.*)
- 63 Denebkaitoz] Denebcaithoz Cε; Denebcaitoz Qδ; Denebkaiton Eπ; Denebkaythoz Cι; Denebkaytor Tδ Wδ; Denebkaytoz Eο Eτ Lε Mo Pυ Wα; Denebkidoz Bθ Vπ; Denepkayza Σε cethi/ceti] cethi *some*; ceci Bθ Qδ; cethy Wα Wδ 22 0] 30 0 Aα Eτ Lε Tδ; 22 0 *corr. to* 30 0 Bθ Cε Eο Pθ Pυ Vπ 10 0] 22 0 Aα Eτ Lε Tδ; 10 0 *corr. to* 22 0 Bθ Eο Pθ Pυ Vπ merid.] *om.* Cε; australis Wα Wδ; sept. Mη(*corr. in marg. to merid.*)
- 64 Sceder] Scedry Σε; Sedes Qδ 18 0] 20 0 Eο; 28 0 Bθ Cε Eτ Mη Mo Pυ Qδ Vπ

⁴⁵ For “mus(c)ida”, see Appendix I: ε Peg.

[ϵ Peg]	Enif	the muzzle of the horse Pegasus	13° 0'	7° 0'	N
[δ Cap]	Deneb Algedi ⁴⁶	the tail of the he-goat/ Capricorn	14° 0'	19° 39'	S
[δ Aqr]	Scheat ⁴⁷	the shin ⁴⁸	30° 0'	19° 0'	S
PISCES					
[β Peg]	Alferaz	in Pegasus	6° 0'	24° 0'	N
[β Peg]	Markab ⁴⁹	the shoulder of the winged horse ⁵⁰	18° 0'	25° 0'	N
[ι Cet]	Deneb Kaitos	the tail of the whale	22° 0'	10° 0'	S
[α Cas]	Schedar		18° 0'	53° 0'	N

⁴⁶ See Libedeneb, above.

⁴⁷ A name later transferred in or after 1424 by John of Gmunden or his school to Pegasus. See Appendix I: β Peg. “Scheat” has now officially become “Skat”.

⁴⁸ The shin of Aquarius.

⁴⁹ A duplicate of Alferaz; see Appendix I: β Peg.

⁵⁰ I.e., Pegasus.

[*Tabula 1-A*]¹TABULA STELLARUM SECUNDUM MODERNOS QUE PONATUR
IN QUADRANTE CUM LATITUDINE AB EQUINOCTIALI

Signa	Nomina stellarum	Longitudo ² g~ m~	Latitudo ³ g~ m~	Pars mundi
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Cζ⁴ Eδ Eζ Eo Lζ Mv⁵ Po

- 1-2 Tabula ... equinoctiali] Eo; *om.* Eδ Eζ Mv Po; Nomina stellarum fixarum verificatarum per instrumenta que ponuntur in rethe astrolabii Lζ; Tabula stellarum fixarum que ponuntur in astrolabio cum longitudine sua in circulo signorum et latitudine sua ab equinoctiali et dicitur hic longitudo tegens zodiaci cum quo venit ad medium celi Cζ
- 3-4 Signa] *om.* Eδ Lζ; Nomina signorum Eζ; Nomina signorum zodiaci Cζ Nomina stellarum] *om.* Eδ Lζ; Stelle Mv; *add.* fixarum Cζ Longitudo | g~ m~] *om.* Eδ; Longitudo uso dia | g~ m~ Cζ Latitudo | g~ m] *om.* Eδ; Latitudo ab equi[noctiali] | g~ m~ Cζ Pars mundi] *om.* Eδ Eζ Po; Partes mundi Cζ Lζ; *add.* In quibus ymaginibus sunt stelle Cζ

¹ Contains 41 stars (with one or two missing in some mss). See Kunitzsch, *Typen*, Typ VIII, mss k-n and p; pp. 51-58.

All copies of this star list are associated with Pseudo-Masha'allah's text, except Eo, Lζ, and Mθ, where the tables are separate from the text.

Since this is a version of Tabula 1, no English translation is provided.

² Mediation.

³ Declination.

⁴ The star list in Cζ is something of an anomaly, given the large number of variants from any base version. The selection of stars does not match other versions nor do its co-ordinates; some times they are close to Star List 1 but at other times closer to Star List 1-A, and at other times unique. Furthermore, it is the only one in this list that seems originally to have descriptions of images attached to it, and these descriptions match to a large extent the star list from 1246 ascribed to John of London (Kunitzsch, *Typen*, Typ VI). I include it here as the best place to record this text.

⁵ First seven stars only (Mirac to Aldebaran).

ARIES

5	[β And]	Mirac	7° 0' ⁶	32° 30'	sept.
	[ζ Cet]	Batenkaytoz	19° 0'	14° 0'	merid.
	[α Ari]	Enif	22° 0'	19° 30'	sept.

TAURUS

	[α Cet]	Menkar	6° 0'	1° 0'	sept.
10	[α Per]	Algenib	9° 0'	47° 0'	sept.
	[τ ² Eri]	Algetenar	22° 0'	16° 0'	merid.
	[α Tau]	Aldebaran	29° 0'	14° 30'	sept.

GEMINI

	[α Aur]	Alhaioh	6° 0'	46° 0'	sept.
15	[β Ori]	Rigil	11° 0'	8° 0'	merid.

5	Mirac]	Mirach Cζ; <i>add.</i> Andromade Cζ	7 0] 70(!) [0] Po ⁷ ; 8 0 Cζ	32 30] 14 0 Eo;
		34 0 Cζ	<i>add.</i> [ζ Cet] Denebkaytoz 0 30 23 0 merid. Cξ	
6	Batenkaytoz]	Bataikaitos Cζ; Batecay~ Mv; Batenkaitoz Eo; Batenkayteiz Po; <i>add.</i> in ventre ceti Cζ	19 0] 18 0 Cζ; 19 14 Mv	14 0] 19 30 Eo
7	Enif]	<i>add.</i> que est super capud Arietis Cζ	22 0] 24 0 Cζ	19 30] 20 0 Cζ; 32 30 Eo
9	Menkar]	Mekar Mv; Melzar Eδ; Menhkar Eζ; <i>add.</i> et est naris ceti Cζ; <i>add.</i> in marg. naris ceti Eo	6 0] 7 0 Cζ	1 0] 2 0 Cζ
10	Algenib]	Algeneb Cζ; Algon Po; <i>add.</i> latus Persei dextrum Cζ	47 0] 41 0 Eζ; 49 0 Cζ	9 0] 19 0 Cζ
11	Algetenar]	Augekanar Eζ; Augekauar Eδ Po; Augetanar Eo; Augetenar Cζ Lζ; Augete ^{nar} Mv; <i>add.</i> flumen in reflexione riui eridani Cζ	16 0] 49 0 Cζ	
12	Aldebaran]	Aldebanar Eδ; <i>add.</i> id est oculus Tauri Cζ; <i>add.</i> in marg. oculus vel cor Tauri id est vespera Eo	29 0] 29 20 Cζ	sept.] <i>star list in ms Mv ends</i>
14	Alhaioh]	Alaioth Cζ; Alhaiot Eζ Eo; Alhayot Lζ; Alkaiot Po; Malhaiot Eδ; <i>add.</i> in marg. hircus Eo; <i>add.</i> in humero agitatoris vel hircus Cζ	46 0] 43 48 Eo; 45 0 Cζ	
15	Rigil]	<i>add.</i> in pede Orionis vel Scorpionis Cζ; <i>add.</i> in marg. pes Orionis Eo	8 0] 10 0 Eo	11 0] 10 0

⁶ In some mss the “0” is omitted from the *minuta* column; i.e., the space is blank. No effort has been made to record this practice in detail, especially when in some manuscripts there is sometimes a “0” and sometimes a blank.

In mss Eδ, Eζ and Po only the degrees of longitude are given. The degrees of latitude are found under *longitudo - minuta*; the minutes of latitude are found under *latitudo - gradus*; and the *pars* is found under *latitudo - minuta*.

⁷ This could actually be a conflation of 7° 0'.

	[α Ori]	Algeuze	16° 0'	7° 0'	sept.
	CANCER				
	[α CMa]	Alhabor	2° 0'	17° 0'	merid.
	[α CMi]	Algomeyza	13° 0'	7° 0'	sept.
20	[α Gem]	Bazelgeuze	9° 0'	33° 0'	sept.
	[ρ Pup]	Markeb	21° 0'	22° 30'	merid.
	LEO				
	[α Hya]	Alfard	9° 0'	5° 30'	merid.
	[α Leo]	Cor leonis	20° 0'	15° 0'	sept.
25	[θ UMa]	Ursa	20° 0'	45° 0'	sept.
	VIRGO				
	[]	Corvus	1° 0'	11° 30'	merid.
	[α UMa]	Dubhe	2° 0'	66° 0'	sept.
	[β Leo]	Cauda	15° 0'	19° 30'	sept.
16	Algeuze] Algenze C ζ ; Elgeuze E ζ Po; <i>add.</i> humerus audacis (<i>ms.</i> andacis) dexter C ζ ; <i>add.</i> <i>in marg.</i> humerus dexter Orionis Eo 16 0] 14 0 Eo L ζ 7 0] 6 0 C ζ				
18	Alhabor] Alabor C ζ ; <i>add.</i> <i>in marg.</i> in ore canis meridionalis Eo; <i>add.</i> que est in ore canis et est in ultimitate (<i>ms.</i> Imitate) luminis C ζ 2 0] 3 0 Eo; 3 20 C ζ 17 0] 15 30 C ζ Eo				
19	Algomeyza] Algomeiza C ζ Eo; Algomerza E ζ Po; Algoniza E δ ; <i>add.</i> <i>in marg.</i> in collo canis minoris Eo; <i>add.</i> que est lucidior canis minoris C ζ 13 0] 12 0 C ζ				
20	<i>Entry before</i> Algomeyza: Eo L ζ ; <i>entry om.</i> C ζ Bazelgeuze] Ratarlem Eo; Raztaben L ζ ; Raztaten E δ E ζ Po 9 0 L ζ Eo] 13 0 E δ E ζ Po 33 0 L ζ Eo] 7 0 E ζ Po; 7 30 E δ				
21	Markeb] <i>add.</i> id est navis et est illa que sequitur Alhabor et creditur quod sit de navi C ζ 21 0] 2 0 E δ ; 22 0 C ζ				
23	Alfard] Alfrad E ζ ; <i>add.</i> <i>in marg.</i> equus vel singularis Eo; <i>add.</i> id est singularis et est in serpente Ydre [<i>illeg.</i>] C ζ 9 0] 8 10 C ζ 5 30] 4 20 C ζ ; 15 30 Eo				
24	Cor leonis] <i>add.</i> Casbeteced C ζ 18 0] 20 0 C ζ ; 19 25 Eo 15 0] 15 30 C ζ ; 15 51 Eo				
25	<i>Entry om.</i> C ζ Ursa] <i>add.</i> <i>in marg.</i> Aldiran id est in fronte leonis Eo 45 0] 60 0 Eo				
27	<i>Entry om.</i> C ζ				
28	Dubhe] Ednb C ζ ; <i>add.</i> id est ursa et est in quadrato maioris urse clarior et est super dorsum eius sub sinistro pede ipsius urse posteriore et sunt due coniuncte C ζ 2 0] 0 19 C ζ 66 0] 6 0 C ζ ; 60 0 Eo sept. C ζ Eo L ζ] merid. E δ E ζ Po				
29	Cauda] Cauda leonis C ζ ; Tauda E ζ ; <i>add.</i> id est denebeled C ζ 15 0] 14 0 C ζ				

30 [γ Crv] Algorab 22° 0' 13° 30' merid.

LIBRA

[α Vir] Alchimeth 10° 0' 7° 0' merid.

[η UMa] Bennenaz 19° 0' 53° 0' sept.

[α Boo] Alramech 27° 0' 24° 0' sept.

35 SCORPIO

[α CrB] Elfeca 16° 0' 29° 0' sept.

[δ Oph] Yed 26° 0' 2° 0' merid.

[α Sco] Cor Scorpionis 26° 0' 21° 0' merid.

SAGITTARIUS

40 [α Oph] Alhaue 14° 0' 13° 0' sept.

[γ Dra] Taben 25° 0' 51° 0' sept.

CAPRICORNUS

[α Lyr] Vega 2° 0' 37° 0' sept.

30 Algorab] *add.* id est corvus et est in quadrangulo corvi meridiana ursi maioris C ζ ; *add. in marg.* vel in centauro Eo 22 0] 23 0 C ζ 13 30] 13 50 C ζ *add.* nomina signorum | nomina stellarum | longitudo gradus minuta | latitudo gradus minuta | partes mundi | in quibus ymaginibus sunt stelle C ζ

32 Alchimeth] Alchimec Eo; Alchimech L ζ Po *add. in marg.* inermis Eo; *add.* inermis et est super palmam sinistram virginis et dicitur Spica C ζ 10 0] 11 0 C ζ ; 12 0 Eo 7 0] 7 50 C ζ Eo

33 Bennenaz] Becnenas Eo; Benenaz E δ E ζ L ζ Po; Benetnaz C ζ ; *add.* id est filia feretri et est in extremitate caude C ζ 19 0] 18 0 C ζ 53 0] 52 0 C ζ ; 58 0 E ζ

34 Alramech] Alramek C ζ ; Alrameth E ζ ; *add.* id est lanciator et non est in forma alicuius aiat (=animalis?) et notatur alchimech [vel] aramek C ζ ; *add. in marg.* lanceator Eo 27 0] 23 50 Eo; 28 0 C ζ 24 0] 24 18 Eo; 34 0 E ζ

36 Elfeca] Alfeca C ζ ; Elfeta E δ ; *add.* clarior in corona C ζ ; *add. in marg.* id est corona Eo 16 0] 17 0 C ζ ; 18 0 Eo L ζ 29 0] 28 30 C ζ

37 Yed] Yeb L ζ ; [Y]ed E δ ; *add.* id est manus sinistra serpentarii in qua tenet serpentem et due sunt coniuncte C ζ 2 0] 3 0 C ζ

38 Cor Scorpionis] Cor Scorpium L ζ ; *add.* id est alaqab C ζ 26 0] 29 0 C ζ ; 29 47 Eo 21 0] 21 30 L ζ ; 23 38 Eo; 24 0 C ζ

40 Alhaue] Alhane Eo; Alhauue L ζ ; *add. in marg.* capud draconis Eo; *add.* capud serpentarii C ζ 14 0] 15 0 C ζ

41 Taben] Thaben Eo L ζ ; *add.* capud draconis illius qui dividit ursas C ζ 25 0] 23 0 C ζ

43 Vega] Wega Po; Wzega E δ ; *add.* vultur cadens C ζ Eo(*marg.*) 2 0] 3 0] C ζ 37 0] 38 0 C ζ

45	[α Aql]	Altair	16° 0'	7° 0'	sept.
	[ϵ Del]	Delfin	29° 0'	12° 30'	sept.
	[α Cyg]	Aldigege	30° 0'	43° 0'	sept.

AQUARIUS

	[α Cep]	Aldiran	10° 0'	59° 0'	sept.
	[ϵ Peg]	Musida Equi	13° 0'	7° 0'	sept.
50	[δ Cap]	Denebalgedi	14° 0'	19° 39'	merid.
	[δ Aqr]	Sheach	30° 0'	19° 0'	merid.

PISCES

	[β Peg]	Humerus equi	6° 0'	24° 0'	sept.
	[ι Cet]	Denebkaitoz	30° 0'	22° 0'	merid.
55	[α Cas]	Sceder	28° 0'	53° 0'	sept.
	[β Peg]	Alferaz	16° 0'	26° 0'	sept.

- 44 Altair] Altam E δ E ζ ; Altani Po; Althayr L ζ ; *add.* vultur volans C ζ Eo(*marg.*) 16 0]
17 0 C ζ ; 21 15 Eo 7 0] 6 30 C ζ ; 7 30 E δ
- 45 Delfin] Delfyn C ζ ; Delphin Eo; *add.* in *marg.* cauda Capricorni Eo; *add.* in rumbo
orientalior C ζ 12 30] 12 0 C ζ E δ
- 46 Aldigege] Addigege L ζ ; Adigege Eo; *add.* in *marg.* cauda galline Eo; *add.* in caude galine
C ζ 30 0] 29 0 C ζ 43 0] 42 0 C ζ
- 48 Aldiran] Abera E δ ; Abhena Po; Abhera E ζ ; Ahzera L ζ ; Aldira C ζ ; Aldirab Eo 10 0]
12 0 C ζ 59 0] 50 30 E δ ; 60 0 C ζ
- 49 Musida Equi] am equi E ζ ; *add.* id est Enif et est Pegasus C ζ 13 0] 14 0 E δ 7 0]
6 0 C ζ ; 19 0 E δ sept.] merid. E δ
- 50 Denebalgedi] Deuebalgedi Eo; Zenebalgedi Po; Zinebalgedi E ζ ; *add.* in *marg.* cauda
Capricorni Eo; *add.* et est in prima duarum coniunctarum scilicet orientalior C ζ
14 0] 13 0 E δ 19 30] 7 30 E δ ; 19 39 Eo; 20 30 C ζ merid.] sept. E δ
- 51 Sheach] Cenok C ζ ; Scead Eo; Seheach E ζ ; *add.* id est cruz et meridiana duarum in cruce
aquarii C ζ 30 0] 14 0 Eo 19 0] 19 30 E ζ Eo Po; 20 30 C ζ
- 53 6 0] 7 0 C ζ 24 0] 20 0 C ζ
- 54 *Entry om.* C ζ ⁸ Denebkaitoz] Denebizaitoz E δ ; Denebkaicoz Po; Denebkaytos Eo;
Denebkaytoz L ζ ; *add.* in *marg.* cauda ceti Eo 30 0] 20 0 E ζ
- 55 Sceder] Seder E δ E ζ Po; *add.* id est pectus cassiepie C ζ 28 0] 0 30 C ζ ; 18 0 Eo
53 0] 52 0 E δ E ζ Po
- 56 *Entry om.* Eo L ζ Alferaz] Alferas C ζ ; *add.* id est equus scilicet humerus eius et est
clarior et est triang[u]l[ari]s C ζ 16 0] 23 0 C ζ

⁸ This entry in ms C ζ may have been transferred to Aries, following Mirac. See above.

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[*Tabula 2*]¹

TABULA STELLARUM FIXARUM VERIFICATARUM PER ARMILLAS PARISIUS.

Et est longitudo earum gradus circuli signorum per circulum transeuntem polos zodiaci et stellas. Latitudo vero earum est arcus eiusdem circuli cadens inter stellas et gradum longitudinis earum.

Aα Bθ Cε Cη Cι Dγ² Dη Eδ Eζ Eτ Lε Mη Mλ Pδ Pθ Po Pτ Pυ Qδ Rα Sβ³ Sγ Tδ⁴ Vπ Wα Wδ Wη Xα⁵

- 1 fixarum] *om.* Mλ Po; *interlin.* Pθ
- 1-4 Tabula ... earum] Cε Cι Dη Lε Sγ(*bottom marg.*) Tδ Wα; *om.* Eδ Eζ Eτ⁶ Mη Pτ; Iste (*add.* sunt Xα) stelle fixe verificate sunt per instrumentum armillarum in civitate Parisiensi Dγ Rα Sβ Xα; *add. in bottom marg.* Hec secunda tabula stellarum fixarum que ponuntur in astrolabio est verificata per instrumentum armillarum in civitate Parisiensi et est longitudo earum arcus orbis signorum interceptus inter circulum magnum transeuntem per polos orbis signorum et principium Arietis et circulum transeuntem per eosdem polos et stellam. Latitudo vero earum est distancia earum ab orbe signorum et est arcus ipsius circuli transeuntis per polos orbis interceptus inter orbem signorum et circulum transeuntem per stellam equidistantem circulo signorum Rα
- 2 circuli] *om.* Wη; signorum Mλ transeuntem] *add.* per Dη Mλ Sγ polos] *om.* Wδ
- 3 latitudo ... stellas] *rep.* Sγ est] *om.* Mλ Po stellas et] *om.* Qδ; stallam et Mλ gradum] gradus Cη Pδ Pθ
- 4 longitudinis earum] ipsius Mλ; suum Po Pτ Wη earum] ipsarum Aα Bθ Pυ Sγ Vπ; *add.* 86mi canoīs tabula Wα; *add.* Tabula 86^{ti} canoñ. Wδ; *add.* Et hoc est secundum modernos Pτ

¹ Contains 31 stars. Kunitzsch, *Typen*, Typ VII, pp. 47-50.

All copies of this star table are associated with Pseudo-Masha'allah's text, except in ms Wα where the table is separate from the text; and in mss Bκ, Sγ, Wδ, and Wη which contain no copy of the text.

² The lists in mss Dγ, Sβ, and Xα begin with the 2 stars in Pisces, and then those in Aries to Aquarius.

³ See note 2.

⁴ Kunitzsch (*Typen*, pp. 47-48) notes that Bernkastel-Kues, Bibliothek des St. Nikolaus-Hospital, ms. 209, fol. 77va contains a list (dated 1339) of 13 stars (from Taurus to Capricorn) which match this list. Given the fact that the list is only an incomplete selection, and that no part of the Pseudo-Masha'allah text appears in the manuscript, I have decided not to collate it with Star List 2.

⁵ For ms Xα see note 2.

⁶ Kunitzsch (*Typen*, p. 49) records a note in the top right margin of Eτ: "Anno domini 1246." This is not legible in the copy supplied to me. ("I still have the paper copy of that page from those times, and I can well read that notice referring to AD 1246 in the upper right." PK [2016])

[*LIST OF STARS 2*]

TABLE OF FIXED STARS VERIFIED BY ARMILLAS AT PARIS.

And their longitude is the degree along the circle of signs to a circle passing through the poles of the zodiac and the stars. Their latitude, however, is the arc of the same circle falling between the stars and their degree of longitude.

5	Nomina ⁷ signorum	Nomina stellarum	Ymagines	Longitudo g~ m~	Latitudo g~ m~	Pars latitudinis
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ARIES

[α Cet]	Pantakaytoz	venter ceti		10° 0' ⁸	20° 0'	merid.
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- 5 Nomina signorum] *om.* Cε Cι Eδ Mη Ρα Sβ Wδ Wη Χα; *cut off* Pο; Signa Aα Cη Dη Eτ Pδ Pθ Pυ Qδ Wα Nomina stellarum] *om.* Cε Eδ Wη; *om.* stellarum Bθ Vπ; *add.* fixarum Cη Mλ; Stelle Dη; Nomina stellarum cum ymaginibus Eτ Pθ; Nomina stellarum fixarum cum ymaginibus in quibus sunt Mη Wα Wδ; *add.* Nomina stellarum fixarum cum suis ymaginibus Dη; *add.* Nomina stellarum fixarum cum ymaginibus in quibus sunt Cι Pδ; *add.* Nomina stellarum cum suis ymaginibus Bθ Vπ Ymagines] *om.* Cε Eδ Eτ Mη Pθ Wη; cum suis ymaginibus Lε Tδ; et ymagines earum in quibus sunt Pυ; Nomina ymaginis in quibus sunt Dγ Ρα Sβ Χα(*om.* sunt); *add.* earum Aα Pδ; *add.* ipsarum Eζ Mλ Pο Pτ; *add.* stellarum Cη Cι Wα Wδ Longitudo | g~ m~ *om.* Eδ Mη; Longitudo Ρα Sβ Sγ Χα; Longitudo stellarum Aα Cε; Longitudo stellarum | g~ m~ Bθ Cι Pδ Pυ Qδ Vπ; *add.* id est gradus in signo id est declinatio Wα Wδ Latitudo | g~ m~] *om.* Cε Eδ Mη Sβ; Latitudo Ρα Sγ Χα; Latitudo earum Aα; Latitudo earum | g~ m~ Bθ Cι Pδ(*add.* earum) Pυ Qδ Vπ; *add.* ab ecliptica Pτ Pars latitudinis] *om.* Eδ Mη Ρα Sβ Χα; *add.* stellarum Cε Lε Pδ Pθ Tδ; *add.* earum Cι; Pars mundi Eζ Mλ Pο; Partes latitudinis Eτ; Partes mundi Dγ Pτ Sβ *add.* Magnitudinis Wη⁹; *add.* in marg. gradus et minuta cum quibus stellae veniunt ad medium celi Sγ
- 6 Aries] *om.* Cε Eδ; *cut off* Pο
- 7 Pantakaytoz] *illeg.* Χα; Paandoz Bθ; Pacacaitos Dγ; Pacacaitoz Sβ; Padaithos Vπ; Pantachaitos Cε; Pantacaytoz Eζ Mλ Pο Pτ; Pantaitoz Aα Qδ; Pantakaitoz Pθ; Pantaytoz Pυ; Panthacaythos Cι; Panthacaytos Eδ; Panthakaitos Pδ; Panthakaitos Mη; Panthakartos Wα Wδ; Pantkaytoz Tδ; Patacaitoz Ρα; Patakam Sγ venter ceti] cor ventri(!) ceti Sγ; venter cethy Wα Wδ ceti] ceci Dγ Pο Qδ; cethi *some* 10 0] *corr.* from 10 20 Wη; *corr.* from 28 0 Ρα merid.] *om.* Cε¹⁰; sept. Sγ; *corr.* from sept. Tδ; *add.* in marg. ab ecliptica Pτ

⁷ All mss follow this order of columns, except Cε and Eδ which omit the names of the signs, and Eδ in which the images are found in the last column on the right.

⁸ In many manuscripts, the minute columns are often left blank if the minutes are "0".

In ms Pδ the longitudes, latitudes and *pars* for every star are found in the line below, i.e., following the name and image of the next star.

⁹ Although ms Wη has a final column for magnitudes, it is blank.

¹⁰ In ms Cε only the stars which are *septentrionalis* are marked as such; all the *meridionalis* notations are omitted.

Names of the signs	Names of the stars	Images	Longitude ¹¹ ° / '	Latitude ¹² ° / '	Part of the lati- tude ¹³
ARIES					
[α Cet]	Pantakaytoz	belly of the Whale	10° 0'	20° 0'	S

¹¹ Celestial longitude.

¹² Celestial latitude.

¹³ This column indicates whether a star is north (*septentrionis*) or south (*meridionalis*) of the celestial equator. In modern notation this is usually indicated by a plus or minus sign.

TAURUS¹⁴

10	[α Tau]	Aldebaran	oculus vel cor Tauri	20° 0'	5° 0'	merid.
	[α Per]	Algenib	latus dextrum Persei	20° 0'	30° 0'	sept.
	[α Cet]	Menkar	naris ceti	2° 0'	12° 0'	merid.

GEMINI

	[β Ori]	Rigil algeuze ¹⁵	pes Orionis	5° 0'	30° 0'	merid.
	[α Aur]	Alhailoth	hircus	10° 0'	22° 40'	sept.

8 Taurus] *om.* Cε Eδ; *cut off* Po; Thaurus Wη

9 Aldebaran] Aabaran Vπ; Abdrebran Wα Wδ; Albedaran Eδ Eζ Po; Aldebar' Sβ;
Aldebarum Qδ; Altebarum Dγ vel] *om.* Dγ Rα Sβ Tauri] Thauri Wη; Thuri Wα
20 0] 28 0 Dγ Eδ Eζ Eτ Mλ Po Sβ Wη; 29 0 Sγ 5 0] 5 12 Dγ Eδ Eζ Mλ Po Rα Sβ
Wα Xα; 5 22 Pτ; 14 0 Sγ merid.] *om.* Cε; sept. Cη Cι Lε Pδ Pθ(*corr. in marg. to*
merid.) Sγ Tδ Wα Wδ

10 Algenib] Algebim^{ym} Dγ; Algebin Eδ Eζ Po Pτ; Algebuni Mλ; Algebinin Xα; Algebinym
Sβ; Algebinyn Rα; Algenip Wα Wδ; Algeuu' Sγ 20 0] *om.* Rα Xα¹⁶ 30 0] 3 0
Mη; 22 0 Sγ sept.] merid. Mη Sγ; *corr. from* merid. Tδ

11 Menkar] Memkar Sγ; Mencar Pτ; Menchar Qδ; Menkarz Xα; Menkaz Rα; Menkhar Mη
naris ceti/cethi] manus ceti Sγ; nares ceti Sβ; naris ceci Dγ Po Qδ; naris cethy Wα
Wδ 2 0] 22 0 *corr. to* 2 0 Aα 12 0] *om.* Sγ¹⁷; 20 0 Qδ merid.] *om.* Cε; sept.
Sγ

12 Gemini] *om.* Cε Eδ ; *cut off* Po

13 Rigil] Rigel Dγ Eδ Eζ Eτ Mλ Po Rα Sβ Wη; Rygil Wδ algeuze] *om.* Cι Dη; alg[*illeg.*]
Xα; algebre Sγ; algenza Cε Eτ Pτ Sβ Wη; algeoze Eδ Eζ Po; algeure Qδ; algeute Wα Wδ;
algeuze Cη; fulgentis Dγ Orionis] Orlonis Aα 5 0] *corr. to* 5 30 Pτ; 5 30 Mλ
Wη merid.] *om.* Cε; sept. Mη Sγ

14 Alhailoth] Alcaioth Xα; Alchailoch Dγ Sβ; Alhailoch Cη; Alhailot Eδ Mλ Wα; Alhailoth Pτ;
Alhalach Sγ; Alharoth Pθ; Alhayot Wα Wδ; Althailoth Rα hircus] hircus *some*
22 40] 12 40 Rα Xα sept.] merid. Mη Sγ

¹⁴ In ms Mη the names of the signs are at the left, but the normal lines linking the name to the various stars are missing, so that the name seems to be opposite the second or third star in that sign.

¹⁵ "Algeuze" is from "al-Jauzā'," i.e., Orion; Rigil is "the foot [of Orion]". See Appendix I.

¹⁶ The degrees of longitude in both ms Xα and Rα have moved up one line. They have been corrected.

¹⁷ The degrees of latitude in ms Sγ have moved up one line. They have been corrected here.

TAURUS

[α Tau]	Aldebaran	eye or heart of Taurus	20° 0'	5° 0'	S
[α Per]	Algenib	right side of Perseus	20° 0'	30° 0'	N
[α Cet]	Menkar	nose of the Whale	2° 0'	12° 0'	S

GEMINI

[β Ori]	Rigel, of Orion ¹⁸	the foot of Orion	5° 0'	30° 0'	S
[α Aur]	Capella	he-goat ¹⁹	10° 0'	22° 40'	N

¹⁸ See note 15.

¹⁹ Traditionally “she-goat” and hence its common name, “Capella.”

15 [α Ori] Bedelgeuze humerus dexter 15° 0' 15° 30' merid.

CANCER

[α CMa] Alhabor in ore canicule 3° 0' 39° 10' merid.

[α CMi] Algomeiza in collo canis minoris 14° 0' 15° 30' merid.

[α Gem] Razalgeuze capud geminorum 8° 0' 10° 0' sept.

20 LEO

[α UMa] Dubhe ursa 4° 0' 40° 0' sept.

[α Leo] Calbalezed cor leonis 18° 0' 0° 10' merid.

15 Bedelgeuze] Bedegenza Vπ; Bedegeuze Aα Bθ Qδ; Bedelgeiza Wα; Bedelgenze Cε Pτ Wη; Bedengelse Cι; Beldegense Sγ; Beldegeuze Xα; Beldergenze Dγ Sβ; Betelgeuze Eδ dexter] *om.* Sβ; *add.* Orionis Mλ Pυ Qδ 15 30] 5 30 Xα merid.] *om.* Cε; *corr.* from sept. Tδ

16 Cancer] *om.* Cε Eδ; *cut off* Po

17 in ... canicule] id est transiens Sβ Xα; id est transiens (*add.* et est Dγ) in ore canicule Dγ Eδ Eζ Mλ Po Wη (*om.* id est); in hore canicule Aα Bθ Cε Vπ; vel transiens in ore Pτ (*add.* in *marg.* canicule) 3 0] 13 0 Eζ 39 10] 29 10 Mη; 39 20 Aα merid.] *om.* Cε

18 Algomeiza] Aα Bθ Cη Dη Eτ Lε Mη Pδ Pθ Tδ; Algocina vel alg^e- Dγ; Algoesa vel alg^{ie} Sβ; Algomeisa Cι; Algomeyra Pτ; Algomeysa Cε Sγ; Algomeyza Eδ Eζ Mλ Po Wα Wδ; Algomiza Vπ; Algotian vel a' Xα canis] *add.* in *marg.* Pτ minoris] *om.* Wα Wδ 14 0] 17 0 Dγ merid.] *om.* Cε; *corr.* from sept. Tδ; sept. Mη Sγ

19 Razalgeuze] Balzangense Sγ; Bazalgeuze²⁰ Tδ Wδ; Nasalgenze Wη; Ratalgeuze Xα; Rathalgeuze Mη; Razageuze Aα Bθ Vπ; Razalgenza Cε Dγ Eτ; Tazageuze Qδ 8 0] 4 0 Wα Wδ

20 Leo] *om.* Cε Eδ Sγ; *cut off* Po

21 ursa] id est ursa Dγ Eδ Eζ Mλ Po Pτ Sβ Xα 4 0] 14 0 Lε Tδ 40 0] 49 0 Eδ Eζ Po Pτ Wη; 49 10 Dγ Mλ Sβ Xα sept.] *corr.* from merid. Tδ; merid. Mη Sγ Xα

22 *add.* Leo Sγ Calbalezed] Albalezed Wη; Calbalazed Dη; Calbalezeb Qδ Xα; Calbalezet Wδ; Calbalized Sγ; Calbalzed Mη; Calbelezed Eδ; Calbezed Eζ; Kalbalezet Wα 0 10] 0 0 Dη; 10 0 Eζ Po merid.] *om.* Cε

²⁰ In some mss, here and elsewhere, it is difficult to distinguish between “B” and “R”.

[α Ori]	Betelgeuse	the right Shoulder [of Orion]	15° 0'	15° 30'	S
CANCER					
[α CMa]	Sirius	in the mouth of the dog ²¹	3° 0'	39° 10'	S
[α CMi]	Algemeiza ²²	in the neck of "Canis Minor"	14° 0'	15° 30'	S
[α Gem]	Castor	a head of the twins	8° 0'	10° 0'	N
LEO					
[α UMa]	Dubhe	the bear	4° 0'	40° 0'	N
[α Leo]	Cabalezed ²³	the heart of the lion	18° 0'	0° 10'	S

²¹ "Canicula" is the classical name for Sirius.

²² Also known as "Procyon."

²³ Later known as "Regulus."

	[α Hya]	Alfart	equus vel singularis cingulus	15° 0'	22° 30'	merid.
	VIRGO					
25	[β Leo]	Denebalezed	cauda leonis	9° 0'	12° 0'	sept.
	[γ Crv]	Algorab	corvus	29° 0'	15° 0'	merid.
	[η UMa]	Bennenas	filie feretri	16° 0'	53° 30'	sept.
	LIBRA					
	[α Boo]	Alrameth	lanceator	13° 30'	31° 30'	sept.
30	[α Vir]	Alchimeth	inermis	11° 30'	2° 30'	sept.
23	Alfart] Alfarch Vπ; <i>corr. from</i> Alfaret Pθ; Alfarta Mη; Alfarth Aα Bθ Pυ; Alferam Wη; Alferaz Dγ Sβ Xα; Alferat equus Eδ Po; Alferit equus Eζ; Alfrat Sγ; Alpharth Qδ equus ... cingulus] vel singularis Eδ Eζ Po Pτ singularis cingulus] sigl'r Aα Cε; singl'ar Bθ Cι; singularis Dγ Mη Mλ Pυ Qδ Sβ Vπ Wη 15 0] 19 0 Xα merid.] <i>om.</i> Cε; sept. Mη Sγ; sept. <i>corr. to</i> merid. Pθ					
24	Virgo] <i>om.</i> Cε Eδ Sγ					
25	Denebalezed] Benbalezed Pτ; Benbalezet Eζ; Benebalezed Eδ; Denebalered Dγ; Denebalezet Wα Wδ; Denebalozed Sγ cauda leonis] <i>corr. from</i> cor leonis leonis Aα 12 0] 13 0 Sγ sept.] merid. Mη Sγ; merid. <i>corr. to</i> sept. <i>corr. to</i> merid. Pθ					
26	<i>add.</i> Virgo Sγ Algorab] Algurab Dγ Eδ Eζ Po Pτ Sβ Xα; <i>corr. from</i> Alrameth Pθ 29 0] 20 0 Aα merid.] <i>om.</i> Cε; <i>corr. from</i> sept. Tδ; sept. Mη Sγ Wα Wδ Xα					
27	Bennenas] <i>corr. from</i> Alranech Pθ; Benenaz Qδ Vπ; Bennax Pτ; Bennenaz Aα Cι Dγ Eτ Po Wδ Sβ Xα; Bennenez Sγ; Bennennas Cη Lε; Siennemias Tδ; Sunmaz Eζ; Sunnaz Eδ Po; Sunznaz Wη filie feretri] felie feretri Pδl filie baratri Sγ; filie feltri Po Pτ; filie folt' Eδ 53 30] 23 30 Sγ; <i>corr. to</i> 53 0 Eδ; 153 30 <i>corr. to</i> 53 30 Aα sept.] merid. Xα					
28	Libra] <i>om.</i> Cε Eδ Sγ; <i>cut off</i> Po; <i>corr. from</i> Scorpio Pθ					
29	Alrameth] <i>corr. from</i> Alfeca Pθ; Ahamath Pτ; Alramco Sγ; Alramch Qδ; Alramech Dγ Pυ Sβ Wδ; Arameth Bθ lanceator] ator Eδ; ceator Eζ 13 30] <i>om.</i> Aα; ²⁴ 13 0 Bθ Dγ Eδ Eζ Eτ Mη Mλ Pδ Pτ Pυ Wα Wδ Wη Xα; 15 0 Vπ 31 30] <i>om.</i> Aα; 21 30 Mη					
30	<i>add.</i> Libra Sγ Alchimeth] Alchimec Wη; Alchimech Bθ Cι Eδ Eζ Lε Mη Mλ Pυ Vπ; Alchimedi Qδ; Alchmeet Sγ; Alchymech Wα; Alcimeth Eτ; Azimech Dγ; Azimet Sβ Xα; <i>corr. from</i> Calbalacrab Pθ inermis] in hermis Cη Dγ Dη Lε Mη Pδ Qδ Sβ Tδ Xα 11 30] 11 0 Aα Bθ Qδ Vπ Wδ 2 30] 20 30 Cη Lε Sγ Tδ; 132 30 <i>corr. to</i> 32 30 Aα sept.] merid. Dγ Eδ Eζ Po Pτ Wη Sβ Xα					

²⁴ At this point, through to Addigege [α Cyg], ms Aα substitutes the co-ordinates of the star which follows in the list, i.e., those of Alchimeth for those of Alrameth.

[α Hya]	Alfard	horse ²⁵ or the solitary one / girdle ²⁶	15° 0'	22° 30'	S
VIRGO					
[β Leo]	Denebola	tail of the lion	9° 0'	12° 0'	N
[γ Crv]	Algorab	raven	29° 0'	15° 0'	S
[η UMa]	Benetnash	daughters of the bier ²⁷	16° 0'	53° 30'	N
LIBRA					
[α Boo]	Arcturus	the spear thrower	13° 30'	31° 30'	N
[α Vir]	Azimech ²⁸	unarmed ²⁹	11° 30'	2° 30'	N

²⁵ From the confusion between the Arabic for “solitary one” (*al-fard*) and for “horse” (*al-faras*).

²⁶ It is possible that the insertion of “cingulus” (“belt”/“girdle”) is the result of a misreading, at some point, of “singularis.” Of course Hydra is a narrow stretched-out constellation, often represented in maps of the heavens by a snake, and “belt”/“girdle” may reflect this.

²⁷ Of the seven stars forming the asterism known as “The Plough” or “The Big Dipper” or “The Great Wain”, four form the plough itself, or the bowl of the dipper, or the wagon. The other three stars are along the shaft(s) of the plough or wagon, or the handle of the dipper. Benetnash is the last star along the shaft or pole (or handle), furthest from plough/wagon. In this Arabic image three maidens lined up along the shaft are pulling a bier through the heavens.

²⁸ More commonly known as “Spica.”

²⁹ See Appendix I for the base meaning of “the Unarmed” for Azimech.

SCORPIO

[α CrB]	Alfeca	in corona	1° 30'	44° 30'	sept.
[α Sco]	Calbalacrab	cor scorpii	28° 0'	4° 20'	sept.

SAGITTARIUS

35	[γ Dra]	Raztaben	capud draconis	12° 0'	47° 30'	merid.
	[α Oph]	Razalegue	capud serpentis	10° 0'	36° 0'	sept.

31 Scorpio] *om.* Cε Eδ Sγ; *cut off* Po; *corr. from* Sagittarius Pθ

32 Alfeca] Alfeta Cε Cη Dη Eδ Lε Mη Po Pτ³⁰ Sβ Tδ Wη; Alfeka Wα Wδ; Alphefacta Qδ; Elfeta Dγ; Ellefeca Sγ; Raztaben *corr. to* Alfeca Pθ in corona] corona Dγ Rα Sβ Xα; interroncani(?) Sγ; *add.* Adriane Eτ 1 30] 1 0 Wδ; 1 20 Cη Lε Pθ Sγ; 11 20 Tδ; 11 30 Eδ sept.] *corr. from* merid. Tδ; merid. Aα Mη

33 *add.* Scorpio Sγ Calbalacrab] Calbalac^ali Qδ; Cabalacrab Eδ Eζ Po Pτ; Cabalecrab Mη; Calbaletrab Wη; Calbazacrab Wα Wδ; Calibacrab Sγ; *corr. from* Razalegue Pθ cor scorpii] cor scorpionis Dγ Rα Sβ Sγ Wη Xα 28 0] 18 20 Dγ; 28 20 Cε Cι Eδ Eζ Eτ Mη Mλ Pδ Pτ Rα Sβ Tδ(?) Wα Wη Xα; 28 20 *corr. to* 18 20 Po; 28 30 Aα Qδ; 38 30 Bθ Vπ 4 20] 4 29 Sβ; 4 30 Cη Qδ sept. Cη] *om.* Cε[= merid.];³¹ merid. Aα Bθ Cι Dγ Dη Eδ Eζ Eτ Mη Po Pτ Qδ Sβ Vπ Wη; *corr. to* merid. Rα

34 Sagittarius] *om.* Cε Eδ Sγ; *cut off* Po; *corr. from* Capricornus Pθ

35 *om. entry* Eζ Raztaben] Beastaben Sγ; Rartaben Dγ; Rathaben Mη; Ratzhaben Wα Wδ; Razcaben Eτ; Razdaben Bθ Vπ; Raztabeu Dη; Razthaben Cι Pδ; *corr. from* Alwega Pθ 12 0] 12 20 Aα Bθ Qδ; 13 10 Mη 47 30] 47 0 Cη; 47 30 *corr. to* 74 30 Pθ; 74 0 *corr. to* 74 30 Rα; 74 30 Aα Bθ Dγ Eδ Eτ Lε Mλ Qδ Pδ Po Pτ Sβ Tδ Vπ Wα Wδ Wη Xα merid.] *om.* Cε; *corr. from* sept. Tδ; sept. Mη Po Pτ Wα Wδ Wη; *corr. to* sept. Rα

36 *add.* Saggitarius Sγ Razalegue] Altair *corr. to* Razehgue Pθ; Nazalague Eζ; Rasalague Sγ; Rathalague Mη; Razalague Wη; Razalege Qδ; Razalegile Po; Razalegne Bθ Cε Vπ Razaleuge Wα Wδ; Razelgeuza Cη; serpentis] serpentarii Eδ Eζ Po Sβ

³⁰ Because in ms Pτ Alchimeth is inserted interlinearly into the list of stars, the images and the coordinates for all the following stars are shifted one line down through to Enifelferaz [ε Peg].

³¹ Because ms Cε regularly omits “merid.” in this column, I am suggesting that the fact that “sept.” is omitted here (and elsewhere) means that Cε is labelling this star as “merid.”

SCORPIO

[α CrB]	Alphecca	in the crown	1° 30'	44° 30'	N
[α Sco]	Calbalacrab ³²	the heart of the scorpion	28° 0'	4° 20'	N

SAGITTARIUS

[γ Dra]	Rastaben ³³	the head of the dragon	12° 0'	47° 30'	S
[α Oph]	Rasalhague ³⁴	the head of the serpent	10° 0'	36° 0'	N

³² Better known as “Antares.”

³³ The name “Rastaben” has now been transferred to β Dra.

³⁴ I.e., Ra’s al-ḥawwā’, “head of the serpent collector.”

CAPRICORNUS

	[α Lyr]	Alwega	vultur cadens	3° 0'	62° 0'	sept.
	[α Aql]	Altair	vultur volans	20° 0'	29° 30'	sept.
40	[α Cyg]	Addigege	cauda galline	21° 0'	60° 30'	sept.

AQUARIUS

	[δ Cap]	Denebalgedi	cauda capri	13° 0'	2° 30'	merid.
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- 37 Capricornus] *om.* Cε Eδ Eζ Eγ; *corr. from* Aquarius Pθ
- 38 Alwega³⁵] Cη; Addigege *corr. to* Almuga Pθ; Albega Wη; Alwega Dγ Rα Sβ Xα; Alimega Eζ Po Tδ; Aliwega Pτ; Almega Wα Wδ; Almiege Eτ Sγ Tδ; Almigea a' Mη; Alumega Eδ; Aluuega Aα Bθ Cε Cι Lε Pδ Pυ Vπ; Alvega Qδ cadens] *corr. from* volans Wη
3 0] 13 0 Cη Lε Pθ Sγ 62 0] 62 30 Cη
- 39 *add.* Capricornus Sγ Eζ Altair] Abchair Vπ; Alchair Dγ; Alchair Dη Mη; Altayir Eδ; Altayr Po; Althair Aα Bθ Cι Mλ Pδ Pυ Xα; Althayr Pτ Wα Wδ Wη; Athair *corr. to* Althair Rα; *corr. from* Denebalgedi Pθ vultur volans] *marg.* Xα³⁶ 20 0] 10 0 Cε Dγ Rα Sβ Xα; 20 30 Tδ; 29 0 Mη 29 30] *marg.* Xα; 29 31 Lε Tδ; 69 30 Aα sept.] merid. Cη
- 40 Addigege] Addig~ Cε; Addigge Eτ; Aldigege Dγ Dη Eδ Po Pτ Sβ; Aldigene Rα Xα; Delfin *corr. to* Addigege Pθ cauda galline] call'a(?) in cauda eius Eζ; call'aca in cauda Pτ(*add. in marg.* eius); gallina(gallidam Dγ) et est in cauda eius Dγ Rα Sβ Xα; gallina in cauda eius Eδ Po; gallina vel cauda Mλ 21 0] *marg.* Xα 60 30] 2 30 Mη sept.] merid. Aα Mη
- 41 Aquarius] *om.* Cε Eδ Eζ Sγ; *corr. from* Pisces Pθ
- 42 Denebalgedi] Denebalgadi Cε Eδ; Denebalgeda Wδ; Denebalgodi Sγ Vπ; Denebalgedi Dγ Rα Sβ Xα; Deuebalgedi Po; Eniphelferaz *corr. to* Denebalgydi Pθ capri] Capricorni Dγ Dη Eδ Eτ Mλ Po Rα Sβ Wη Xα 2 30] *illeg.* Xα; 2 40 Lε Tδ; 32 30 Aα Mη; 34 0 Eζ merid.] sept. Cε Lε Sγ Tδ; *corr. from* sept. Rα

³⁵ Differentiating the variants for *Alwega* is somewhat problematic. “Alimega”, “Almiega”, and “Aluuega” are all written similarly, i.e., as “Aluuga”, with random dots, or no dots, on top. Similarly for “Alwega”/“Almiega”.

³⁶ In ms Xα the images, longitudes and latitudes after this point move up one line; they have been corrected. And this area of the table in this ms is somewhat confused.

CAPRICORN

[α Lyr]	Vega	the falling vulture	3° 0'	62° 0'	N
[α Aql]	Altair	the flying vulture	20° 0'	29° 30'	N
[α Cyg]	Addigege	the tail of the hen	21° 0'	60° 30'	N

AQUARIUS

[δ Cap]	Deneb Algedi	the tail of the goat	13° 0'	2° 30'	S
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	[? Del]	Delfin	nubilior et orientalior	6° 0'	32° 30'	sept.
	[ε Peg]	Enifelferaz	musida equi pegasi	21° 0'	23° 0'	sept.
45	[δ Aqr]	Sceach	crus	27° 0'	7° 40'	merid.

PISCES

	[β Peg]	Alferaz mentel	humerus equi	20° 0'	31° 0'	sept.
	[β Cet]	Denebkaytoz	cauda ceti	21° 0'	20° 0'	merid.

43 *add.* Aquarius Eζ Delfin] Delfium Pθ; Delphil Qδ; Delphin Sγ; Sceach *corr. to* Delfin Pθ nubilior et orientalior] Cι Wα Wδ;; et est rubrior eius orientalior Dγ Rα Sβ Xα; nubiator eius et orizatoz(?) Sγ; nubilor eius et orientalior Eτ Pδ Tδ; nubilosior eius et orientalior Cη Wη; rubrior et orientalior Pτ; rubor eius et orientalior Eδ Eζ Mλ Po; sinbrior eius torien^{or} Pθ 32 30] 22 30 Eζ; 23 0 Mη; 32 0 Cη; 34 30 Sγ sept.] *om.* Cε [= merid]; merid. Xα; *corr. from* merid. Rα

44 *add.* Aquarius Sγ Enifelferaz] *corr. from* Alfaraz mentel Pθ; Alfeferaz Mλ; Emfelferam Tδ; Emfelferaz Eδ; Emfelfyn Sγ; Emphalferaz Sβ Vπ; Emphalpheloz Mη; Emphelferaz Rα Xα; Emphelperaz Pδ; Enfelferaz Pτ; Enipapheraz Cε; Eniphafeiraz Aα; Eniphalferez Pυ; Eniphalpheraz Qδ; Eniphelferaz Bθ Cι; Enphelperaz Dγ; Epelferam Wη; Semphephazaz Wδ; Semphepharaz Wα pegasi] peg Aα; pesagi Cη Eτ Lε Tδ; reg' Pτ; pes Sagittarii Sγ 21 0] 22 0 Pτ 23 0] 7 40 Mη; 23 30 Cε; 23 40 Cη; 32 0 Sγ; 33 0 Pτ sept.] merid. Lε Tδ

45 *add.* Pisces Aα Sceach] Denebkaitoz *corr. to* Sceath Pθ; Ocheath Wα Wδ; Scehach Mλ; Scenath Dγ Pτ Rα Sβ; Scheat Wη; Senach Eδ Eζ Po; Shenath Xα; Steach Sγ crus] cauda equi Sγ; crus equarii Wη; id est crus Dγ Dη Eδ Eζ Mλ Po Sβ; id est estus Pτ; si id est crucis *corr. to* si id est crus Rα si id est cruz Xα 27 0] 25 0 Mη 7 40] 7 0 Cε Cη; 31 0 Mη merid.] sept. Cε

46 Pisces] *om.* Aα Cε Eδ Sγ

47 Alferaz] Alfayaz Pθ; Alferam Aα Wη; Alnicelfans Sγ; Alfaraz Dγ; Alpheraz Qδ mentel Cη Cι Lε Pθ Tδ Wα Wδ; *om.* Dη Eδ Eζ Po Pτ Wη; 3echel [= mechel?] Bθ Vπ; menkeb Dγ Rα Sβ Xα; menthel Aα Cε Eτ Pδ; metel Qδ; methel Mη; methyl Pυ humerus equi] humerus Mη; crus Sγ; melkeb humerus equi Eζ; melkob humerus equi Eδ; menkeb humerus equi Pτ; menkep humerus equi Mλ; wlzeb(?) humerus equi Po 31 0] 21 0 Aα; 22 0 Mη; 27 0 Lε Tδ; 30 0 Dγ sept.] merid. Lε Tδ

48 *add.* Pisces Sγ Denebkaytoz] Sγ Wα Wδ; Denebcaitoz Pτ; Denebcaythos Cι; Denebcaytos Eδ; Denebcaytoz Mλ Po; Denebkaitoz Mη; Denebkaitoz Aα Cε Dη Pθ Pυ; Denebkantoz Qδ; Denebkartoz Pδ; Denebkaudos Vπ; Denebkaudoz Bθ; Denebkaytor Wδ; Donec cartor Xα; Donet carthos Dγ; Donet cartoz Rα Sβ cauda ceti] cauda ceci Bθ Dγ Po Qδ Rα Sβ; cauda cethy Wδ; humerus equi Sγ 21 0] *corr. to* 2 0 Eδ merid.] sept. Cε; *add. in marg.* ab ecliptica Pτ

[? Del]	Delfin ³⁷	more clouded, ³⁸ and more easterly	6° 0'	32° 30'	N
[ε Peg]	Enif	the muzzle of the horse, Pegasus	21° 0'	23° 0'	N
[δ Aqr]	Scheat	the shin [of Aquarius]	27° 0'	7° 40'	S
PISCES					
[β Peg]	Alferaz Markab	the shoulder of the horse [Pegasus]	20° 0'	31° 0'	N
[β Cet]	Deneb Kaitos	the tail of the Whale	21° 0'	20° 0'	S

³⁷ See Appendix I (? Del), for a discussion of this second star named Delfin in Aquarius.

³⁸ Or “dimmer/fainter.”

[*Tabula 3-A*]¹

TABULA STELLARUM FIXARUM QUE PONUNTUR IN ASTROLABIO CERTIFICATA
AD CIVITATEM PARISIUS CUIUS LATITUDO EST 48 GRADUS ET 30 MINUTA.
IN ANNO DOMINI 1223

Signa	Nomina stellarum fixarum	Gradus cum quibus mediant celum ³ g~	Gradus longi- tudinis ex ultra- celum ³ g~	Altitudo merid- iana ² que parte ⁴ g~	In quibus ymaginibus sint m~
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Cδ Eε Lα Oψ Pπ⁵

- 1-3 Tabula ... 1223] *om.* Oψ(*cut off?*); Tabula stellarum fixarum verificata Parisius. Anno domini M^o CC 33 cuius latitudo est 48 gradus et 30 minuta Pπ; *add. in marg. (later hand)* Anglam per syon. Anno domini 1223. Tabulam stellarum fixarum que ponuntur in astrolabio certificata ad civitatem Parisius Oψ
- 2 Parisius] Pirijs Lα latitudo ... gradus] *illeg.* Eε
- 2-3 cuius ... 1223] *om.* Lα
- 3 domini] *add. n.i.xi* (= nostri iesu christi) Eε
- 4 signa] *om.* Eε; Nomina signorum in quibus sunt stellae Oψ Pπ Nomina ... fixarum] *om.* fixarum Eε Oψ Pπ Gradus ... celum] g~ Lα; cum quibus mediant celum gradus Eε; | bus mediant celum Oψ Gradus ... parte] [*cut off*] g~ Oψ; Gradus longitudinis | g~ Pπ; Latitudo ex utraque parte | m~ Lα; Longitudinis ex utraque parte gradus Eε meridiana] meridionalis Lα m~] *om.* Pπ in ... sint] cum ymaginibus in quibus sunt Pπ; ymaginibus in quibus sunt stelle Lα

¹ Contains 29 stars. Kunitzsch, *Typen*, Typ XI, pp. 67-71. In this table the readings of ms Oψ are preferred. Only the star list in Oψ is associated with Pseudo-Masha'allah's text (in this case, the *Practica* section). In mss Cδ and Pπ the list is separate from the text, and in mss Eε and Lα there is no copy of the text.

² This is the meridian altitude of the star as viewed from the latitude of Paris (given as 48° 30'). [J.S.]

³ Mediation.

⁴ Declination, but there is no indication if it is north or south of the equator.

⁵ Ms Pπ is a conflation of star list 3-A and star list 3-B. I have collated in each list only the parts of Pπ normally found with that list.

In ms Pπ the order of columns is sign | star | image | mediation | longitude | altitude | pars | latitude (declination) | longitude (mediation). The latter 3 are from version 3-B.

5	ARIES ⁶					
	[ζ Cet]	Patancaitoz, id est pes caitoz ⁷	20°	39°	28° 0'	in pede cuiusdam animalis
	TAURUS					
	[α Per]	Algon	7°	71°	88° 0'	in fronte algonis
	[α Tau]	Aldebaran	28°	59°	56° 30'	in oculo tauri
10	GEMINI					
	[α Aur]	Alhainoch	3°	74°	87° 0'	in humero agitatoris
	[β Ori]	Rigel	10°	39°	32° 0'	in pede orionis
	[α Ori]	Algenie	14°	55°	49° 0'	in pede geminorum ⁸
	CANCER					
15	[α CMa]	Alhabor	1°	36°	26° 30'	in cane meridionali
	[α CMi]	Algomeiza	10°	56°	49° 30'	in cane septentrionali
	[ι UMa]	Egregez	24°	72°	87° 0'	
6	Patancaitoz] Pacancaitoz Cδ; Pancancantoz Lα; Pitaucaitoz Pπ id est] <i>om.</i> Lα pede] ventro Pπ add. <i>above</i> vel venter ceci tunc in nare et latior Pπ					
8	Algon] Algen Cδ 7] <i>illeg.</i> Eε 71] <i>illeg.</i> Eε algonis] <i>add.</i> immo in dextro Persei latere Cδ; <i>add.</i> immo [<i>illeg.</i>] in latere dextro Persei Pπ					
9	Aldebaran] Aldenaran Lα; Aldevaram Eε 59] 49 Cδ 56 30] Cδ					
11	Alhainoch] Alhainoc Cδ; Alhainos Eε; Alhainot Lα					
12	Rigel] Ragal Cδ Lα					
13	Algenie] Algeme Eε; Algemen Pπ; Algome Lα 14] 15 Eε					
15	Alhabor] Alhainoz Cδ 26 30] 26 0 Cδ Pπ					
16	Algomeiza] Algomeisa Lα 49 30] 48 30 Cδ Pπ add. 8 30 Cδ					
17	Egregez] Egregez Pπ add. <i>inter pedem priore[m] urse et capri(?) leonis</i> Pπ					

⁶ In ms Lα there are no lines linking the sign name to the stars (missing in the exemplar?) so that the sign names end up about half-way down each section.

⁷ Normally the gloss for this star is “venter Ceti” / “belly of the Whale”; it is unclear how this became “foot of the Whale”, although Kunitzsch (*Typen*, p. 70) suggests it is probably a misreading of the Arabic.

⁸ The gloss should be “in humero geminorum” or “in humero Orionis”; “geminorum” is derived from the Arabic name for Orion. Again *pes* (“pedem”) seems to be a copyist error. [PK]. See Appendix I.

	LEO					
	[]	Aldiraan	6°	52°	48° 0'	in fronte leonis
20	[α Hyd]	Alfard	13°	41°	34° 0'	in ydra serpente
	[α Leo]	Calbalacet	18°	61°	57° 0'	in corde leonis
	VIRGO					
	[θ UMa]	Alrucaba	17°	76°	90° 0'	
	[γ Crv]	Algurali	18°	38°	31° 0'	in centauro
25	LIBRA					
	[α Vir]	Altimeth	9°	42°	35° 0'	inermis
	[η UMa]	Benenaz	18°	74°	84° 0'	ultra cenith in temone plaustri
	[α Boo]	Alramech	24°	65°	65° 0'	qui tenet lances
19	Aldiraan] Aldiraau Pπ					
20	34 0] 35 0 Cδ Pπ <i>add.</i> in ydra serpente Cδ Pπ(<i>ydra illeg.</i>); <i>add.</i> 39 30 ad minus Cδ					
21	18] 14 Lα					
22	Virgo] <i>om.</i> Cδ Eε; Leo Oψ Pπ					
23	17] 19 Oψ 90 0] 99 0 Pπ; <i>add.</i> in humero agitatoris Lα; <i>add.</i> in humero aguatoris Eε; <i>add.</i> pes urse maioris Pπ					
24	<i>add.</i> Virgo Cδ Eε Oψ Pπ Algurali] Algari Eε; Alglari Cδ Pπ; Alglor Lα centauro] <i>add.</i> gla eius Pπ					
26	Altimeth] Alchimech Lα Pπ; Alchimeth Cδ; Alcimehe Eε 35 0] 35 30 Pπ inermis] in ermismis <i>some</i> ; inhermis Cδ Lα <i>add.</i> 34 Cδ					
27	Benenaz] Benenah Cδ; Benenaiz Pπ; Benenas Lα 74] 72 Lα ultra cenith] <i>line</i> <i>above</i> Pπ; <i>om.</i> Oψ; ultra cenit Eε temone] tegmone Pπ; themone Eε					
28	Alramech] Alrameht Eε tenet] tene Lα					

SCORPIO

30	[α CrB]	Elfeca	16°	71°	72° 0'	in corona
	[β Sco]	Alielil	17°	57°	51° 0'	
	[α Sco]	Calbalagra	27°	14°	19° 0'	in corde scorpionis

SAGITTARIUS

	[α Oph]	Alhauni ⁹	13°	57°	57° 0'	in capite alai
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35 CAPRICORNUS

	[α Lyr]	Vega	1°	72°	79° 30'	in vulture cadenti
	[α Aql]	Althair	14°	55°	48° 30'	in telo ¹⁰ vel in aquila volanti
	[α Cyg]	Alrif	30°	73°	84° 0'	in cigno

AQUARIUS

40	[δ Cap]	Libideneb	6°	34°	20° 0'	in cauda capricorni
	[? Del]	Delphin ¹¹	10°	55°	48° 30'	

30	Elfeca]	Alfera E ϵ ; Effefa L α	16]	6 P π		
31	Alielil]	Alieilis <i>corr. to</i> Alielis C δ ; Alielis P π	51 0]	57 0 O ψ		
32	Calbalagra]	Cabalag ^a C δ ; Calbalag ^a O ψ ; Calbolagar L α	19 0]	10 0 C δ		
34	Alhauni]	Alhaimi E ϵ ; Alhanun P π ; Alhaum L α ; Allahinn C δ	57 0]	56 30 P π		
		alai] alay C δ E ϵ L α	<i>add.</i> 56 30	<i>ad plus</i> C δ ; <i>add.</i> caput Alhalba P π		
36	Vega]	Vuega E ϵ ; Wega C δ P π	in ... cadenti]	in mature cadenti L α		
37	Althair]	Altahir C δ ; Altair L α P π ; Altayr E ϵ	telo]	celo E ϵ		
40	Libideneb]	Libedeneb L α ; Libedenep E ϵ ; Libideuech P π	34]	35 E ϵ L α		
41	Delphin]	Delfin C δ E ϵ ; <i>add.</i> vel degriech P π				

⁹ The variants for this star name probably result from confusion caused by minims.

¹⁰ *Telum* (dart, spear, javelin), an early alternative for *aquila* (eagle); e.g., see “Gerberti liber de astrolabio,” in *Gerberti postes Silvestri II papae Opera Mathematica (972-1003)*, ed. Nicolaus Bubnov (Berlin, 1899), p. 137, line 9 and note “s”.

¹¹ See Appendix I (? Del), for a discussion of this second star named Delfin in Aquarius.

PISCES

	[β Peg]	Alpheraz	6°	65°	65° 0′	in Pegaso
	[β Peg]	Humerus equi	17°	71°	87° 0′	ultra cenith, in equo alato
45	[ι Cet]	Denepcaitoz	22°	36°	32° 0′	in cauda caitoz
43	Alpheraz]	Alferaz Lα Pπ; Halferaz Cδ	65 0]	67 0 Lα	Pegaso]	Pesago Eε Lα
44	87 0]	71 0 Lα	ultra ... alato]	in eque alato	ultra cenich Eε; qui in eque alato	ultra cenich Pπ
45	Denepcaitoz]	Debnecaitoz Eε; Denecaitoz Cδ Lα; Deneb caitoz Pπ	caitoz]	caytoz Cδ		

[*Tabula 3-B*]¹

TABULA STELLARUM FIXARUM QUE PONUNTUR IN ASTROLABIO CUM LONGITUDINE SUA
IN CIRCULO SIGNORUM ET LATITUDINE SUA AB EQUINOCITALI.
ET DICITUR HIC LONGITUDO STELLE GRADUS ZODIACI CUM QUO CELUM MEDIAT

Bi Dγ Eδ Eζ Eμ Mθ Mκ Mλ² Mν Oκ Po Pπ³ Pτ Qα⁴ Rα Sβ Vκ

1-3 *om.* Eδ Pπ(*see SL 3-A*) Qα Vκ; *bottom marg.* Rα; Tabula secundum antiquam positionem Ptholomei⁵ et hic est Pτ

1 Tabula] *add.* signo Eζ cum] cumque Eζ sua] *om.* Mν

2 in ... signorum] *marg.* Po sua] *om.* Mθ

3 dicitur hic] et est Bι zodiaci] *om.* Oκ celum mediat] stella venit ad medium celi Eζ(*om.* celi) Mλ(*add.* vel meridianum) Mν Po; venit ad medium celi Dγ Eμ Mκ Rα Sβ

¹ Contains 29 stars but seven mss insert an extra star (Menkar). Kunitzsch, *Typen*, Typ XI, pp. 67-71. In this table the readings of mss Mλ and Po are preferred.

All copies of this star list are associated with Pseudo-Masha'allah's text, except in mss Mθ, Mκ, Po, and Pπ where the lists are separate from the text; and in mss Eε and Lα which contain no copy of the text.

² The star list in ms Mλ (fol. 87v) has 40 stars including the 29 in this list; only those 29 have been collated here. The source of the other 11 stars is unknown.

³ For ms Pπ only the longitude, latitude, and pars are collated here. Note that the latitude is given first and then the longitude.

⁴ The star list in Qα begins with Alramec in Libra and ends with Benenaz.

⁵ Kunitzsch (*Typen*, p. 70) points out that the reference to Ptolemy is erroneous since his star positions were related to the ecliptic and not to the celestial equator (as in this list).

Signa ⁶	Nomina stellarum	Longi- tudo ⁸ g~	Lati- tudo ⁹ g~	Pars mundi	in quibus imaginibus ⁷
5	ARIES ¹⁰				
[ζ Cet]	Pantankaytos	20° 0' ¹¹	14° 0'	merid.	in pede cuiusdam animalis
	TAURUS				
[α Per]	Algon	10° 0'	46° 0'	sept.	in fronte algonis
[α Tau]	Aldebaran	28° 0'	14° 30'	sept.	in oculo tauri
4	Signa] <i>om.</i> Eδ Eζ Pτ Vκ; Nomina signorum Dγ Eμ Mθ Mκ Oκ Rα Sβ stellarum] <i>om.</i> Eδ Pτ; Stelle Qα; <i>add.</i> fixarum Mθ Mλ Oκ g~] <i>om.</i> Bι Dγ Eζ Mκ Qα Rα Sβ; <i>add.</i> m~ Eμ Po Vκ g~] <i>om.</i> Bι Dγ Eζ Mκ Qα Rα Sβ; <i>add.</i> m~ Eμ Po Vκ Partes stelle Mθ Oκ mundi] <i>om.</i> Po Vκ in ... imaginibus] <i>om.</i> Eδ Pτ Qα Vκ; in quibus sint imaginibus Mθ; ymagines alterium in quibus stelle sint Mλ; <i>add.</i> sint eedem stelle Mv Po; <i>add.</i> sint stelle Eμ Mκ Oκ; <i>add.</i> stelle Eζ				Nomina Longitudo g~] <i>om.</i> Eδ Pτ Latitudo g~] <i>om.</i> Eδ Pτ Pars mundi] <i>om.</i> Eδ Pτ;
6	Pantankaytos] Pancacayt' Eζ Po; Pancatacoz Sβ; Pantacayt' Pτ; Pantacaytos Bι Vκ; Pantachayt~ Eδ; Pantacratoz Rα; Pantancaitos Mθ; Pantancaitoz Eμ Mκ Qα; Pantat ^a toz Dγ; Patancaitos Oκ; Pentant'a Mv 20 0] 29 0 Eδ 14 0] 24 0 Vκ; 34 0 Sβ cuiusdam] eiusdem Eζ				
8	Algon] Longo Eζ 46 0] 16 0 Mv sept.] merid. in al' sept. Pπ				
9	Aldebaran] Abdebaran Qα; Adebran Eμ; Ald'bař Dγ; Aldebarant Eδ; Aldebarim Rα 28 0] 18 0 Eδ 14 30] 14 0 Mθ Oκ Pτ Vκ <i>add.</i> [α Cet] Menkar 20 0 12 0 sept. in nare ceti Eδ Eζ Mλ Mv Po Pτ Vκ (20 0] 2 0 Mλ Mv Po Pτ Vκ)				

⁶ In mss Mθ and Oκ the name of the star comes first, followed by the sign.

⁷ In ms Qα all the images are lacking. In ms Sβ the images are in a separate list below the rest of the table.

⁸ Mediation

⁹ Declination.

¹⁰ The lines which normally link the name of the sign to the various star names are missing in ms Mv, so that the name is opposite one of the stars in the middle of the set for that sign.

¹¹ In mss Mθ, Oκ, and Qα only the degrees (and not the minutes) are given. Here the minutes are treated as "0". As well in ms Qα each degree is preceded by a "g~".

10 GEMINI

[α Aur]	Alhaiot	3° 0'	45 0'	sept.	in humero agitatoris
[β Ori]	Rigil	9° 0'	10° 0'	merid.	in pede orionis
[α Ori]	Algeuze	15° 0'	8° 0'	sept.	in pede geminorum ¹²

CANCER

15	[α CMa]	Alhabor	1° 0'	15° 0'	merid.	in cane meridionali
	[α CMi]	Algomeiza	10° 0'	7° 0'	sept.	in cane septentrionali
	[ι UMa]	Egregez	24° 0'	45° 0'	sept.	

LEO

	[]	Aldiran	6° 0'	6° 0'	sept.	in fronte leonis
20	[α Hya]	Alfart	13° 0'	18° 0'	merid.	
	[α Leo]	Cor leonis	18° 0'	15° 0'	sept.	in corde leonis

- 11 Alhaiot] Alhaioch E δ E ζ E μ M θ M κ O κ Po V κ ; Alhaioth M ν P τ ; Alhalot D γ 45 0] 15 0 M κ ; 41 0 *corr. to* 46 0 B ι sept.] merid. in al' sept. P π humero] umero D γ
- 12 Rigil] Ragel D γ R α ; Rigil B ι E μ M θ M κ O κ Q α S β
- 13 Algeuze] Algem^e D γ S β ; Algemec R α ; Algenie E μ M θ M κ O κ ; Algen^{se} M ν ; Algome Q α ; Algonine^e B ι 8 0] 18 0 M θ O κ sept.] merid. in al' sept. P π geminorum] *corr. to vel [illeg.] humerus orionis M κ ; add. interlin. vel potius idem que humerus orionis E μ*
- 16 Algomeiza] Algome^{za} B ι D γ ; Algomeisa M θ Q α ; Algomeyza M λ O κ ; Algomeza E δ E ζ M ν Po P τ V κ ; Algomezim or Algomeaun R α ; Algomzi S β sept.] merid. in al' sept. P π
- 17 Egregez] Eg^egez D γ S β ; Egregez B ι ; Egragez O κ ; Egregez M ν ; Egregot V κ 45 0] 46 0 M θ sept.] *corr. from* merid. R α *add. and del.* in fronte leonis M κ ; *add. capita geminorum E μ*
- 19 Aldiran] Aldira M λ ; Aldiraan O κ ; Aldirain V κ ; Aldiram D γ E ζ M ν Po R α ; Aldirani E δ S β 6 0] 16 0 R α S β sept.] merid. in al' sept. P π in] *om.* R α
- 20 Alfart] Alfara Q α ; Alfard E μ M θ M κ O κ 13 0] *corr. to* 9 0 B ι 18 0] *corr. to* 5 30 B ι ; 8 0 M θ M κ P π P τ Q α merid.] *corr. from* sept. R α *add. equis vel singularis E μ ; add. in corde leonis R α ¹³ V κ ; add. in ydra M κ*
- 21 sept.] merid. in al' sept. P π *add. in marg. Arabice Calbalacer O κ*

¹² The image should really be “in humero geminorum” or “in humero Orionis”; “geminorum” is derived from the Arabic name for Orion [PK]. See Appendix I.

¹³ Starting with “in corde leonis” the images in ms R α have shifted up one line. They have been corrected here.

VIRGO

[θ UMa]	Alrucaba	19° 0'	48° 0'	sept.	in humero agitatoris
[γ Crv]	Algorab	18° 0'	11° 0'	merid.	in centauro

25 LIBRA

[α Vir]	Alchimech	9° 0'	7° 0'	merid.	inermis
[η UMa]	Bennenaz	18° 0'	54° 0'	sept.	in temone plaustri
[α Boo]	Alramec	24° 0'	24° 0'	sept.	qui tenet lances

SCORPIO

30	[α CrB]	Elfeca	16° 0'	31° 0'	sept.	in corona
	[β Sco]	Halhelil	17° 0'	15° 0'	sept.	
	[α Sco]	Calbalacab	27° 0'	23° 0'	merid.	in corde scorpionis

- 21 Alrucaba] Alrukaba $\nu\kappa$; Arucaba $Q\alpha$ 19 0] 10 0 $B\iota$ sept.] *corr. from merid. $R\alpha$ in ... agitatoris] om. $B\iota$; in agitatoris $E\zeta$; in [h]umero Sagitatoris $D\gamma$*
- 23 Algorab] Alglari $Q\alpha$; Algoeab $M\nu$; Algurab $B\iota$; Algurah $E\mu$ $M\theta$; Algurali $D\gamma$ $M\kappa$ $O\kappa$ $R\alpha$ $S\beta$ 11 0] 3 0 $Q\alpha$ merid.] *corr. from sept. $R\alpha$ add. column headings as in line 4 $M\theta$*
- 26 Alchimech] Alchimec $E\zeta$ $E\mu$ $M\kappa$ $P\tau$ $Q\alpha$; Alchimet $M\nu$; Alkimech $M\theta$ merid.] *corr. from sept. $R\alpha$ inermis] in ermis some; in erinis $P\theta$*
- 27 Bennenaz] Benanaz $M\theta$ $M\kappa$ $O\kappa$; Benenaz $E\mu$ $Q\alpha$; Bunnanaz $E\delta$ $E\zeta$ $P\theta$ $\nu\kappa$; Denenaz $P\tau$ sept.] merid. in al' sept. $P\pi$; *corr. from merid. $R\alpha$ temone] themone $B\iota$ $E\delta$ $E\zeta$ $S\beta$ $\nu\kappa$*
- 28 Alramec] Alramech $B\iota$ $E\mu$ $M\theta$ $M\kappa$ $O\kappa$; Alramer $D\gamma$ $R\alpha$ $S\beta$; Alramet $\nu\kappa$; Aramec $Q\alpha$ lances] lanceas $S\beta$
- 30 Elfeca] Effecta $\nu\kappa$; Elfera $Q\alpha$; Elfeta $D\gamma$ $E\delta$ $P\tau$ $S\beta$ 16 0]] 18 0 $P\tau$ sept.] merid. in al' sept. $P\pi$; *corr. from merid. $R\alpha$*
- 31 Halhelil] $M\nu$ $P\theta$ $P\tau$; Alechl $M\lambda$; Alheba $D\gamma$; Alhelil $B\iota$ $R\alpha$ $S\beta$; Alielil $E\mu$ $M\theta$ $M\kappa$ $O\kappa$; Alielis $Q\alpha$; Halbelil $E\delta$ $\nu\kappa$; Halhellil $E\zeta$ 17 0] 717 0 $E\zeta$
- 32 Calbalacab] Calbalac' b $M\lambda$; Calbalag' $M\theta$ $Q\alpha$; Calbalag- b $B\iota$; Calbalagra $E\mu$ $M\kappa$ $O\kappa$; Calbalag^u $D\gamma$ $R\alpha$ $S\beta$; Calbalantab $E\delta$ $E\zeta$; Calbalat^a b $M\nu$ $P\theta$; Calbala'th $\nu\kappa$; Calbalifb $P\tau$ 27 0] 17 0 $O\kappa$ 23 0] 22 0 $M\nu$ merid.] *corr. from sept. $R\alpha$ scorpionis] scorpil $B\iota$ $D\gamma$ $E\zeta$*

SAGITTARIUS

[α Oph] Alhaue¹⁴ 13° 0' 15° 0' sept. in capite alay

35 CAPRICORNUS

[α Lyr] Wega 1° 0' 38° 0' sept. in vulture cadenti
 [α Aql] Althair 14° 0' 7° 0' sept. in telo vel aquila volante
 [α Cyg] Alrif 29° 0' 42° 0' sept. in cigno

AQUARIUS

40 [δ Cap] Libedeneb 6° 0' 22° 0' merid. in cauda capricorni
 [? Del] Delfin¹⁵ 10° 0' 6° 0' sept.

34 Alhaue] Alchauni Mθ Ok; Alhane Mv; Alhaum Bι Qα Dγ Rα; Alhaun Sβ; Alhauni Eμ Mκ; Halhane Vκ; Sagita alh^{au} Eζ sept.] ~~merid.~~ Pπ alay] alai Bι Dγ Eμ Mκ Rα Sβ; alaonis Eδ; aloa Eζ Mλ Mv Po Pτ Vκ

36 Wega] Mega Dγ Rα Sβ; Vega Bι Eδ Eζ Mθ Mκ Pτ; Vege Ok 38 0] 28 0 Vκ; 37 0 Mλ sept.] ~~sept.~~ merid. in al' sept. Pπ; *corr. from* merid. Rα

37 Althair] Alcayr Pτ; Altair Bι Eδ Mv Qα Vκ; Altayir Eζ; Altayr Po; Althau Rα 14 0] *corr. to* 16 0 Bι; 14 0 4 Eζ sept.] merid. Pπ telo] celo Rα vel] et Bι Dγ; *add.* in Eμ

38 Alrif] Aleif Eζ; Alyif Mθ Ok 29 0] 27 0 Qα 42 0] 44 0 Vκ sept.] merid. in al' sept. Pπ in cigno] in agno Mv; in cingno Mκ; in cino Pτ; in signo Mθ

40 Libedeneb] Libedaneb Qα; Libideneb Bι Dγ Mθ Mκ Ok Rα Sβ merid.] *corr. from* sept. Rα

41 Delfin] Delphin Mv sept.] merid. in al' sept. Pπ *add.* in Mλ

¹⁴ Many of the variants are the result of minim corruption.

¹⁵ See Appendix I (? Del), for a discussion of this second star named Delfin in Aquarius.

PISCES

	[β Peg]	Alferaz	6° 0'	24° 0'	sept.	in Pegaso
	[β Peg]	Humerus equi	18° 0'	25° 0'	sept.	in equo alato
45	[ι Cet]	Denebcaytoz	22° 0'	10° 0'	merid.	in cauda caytoz
43		Alferaz] <i>add.</i> humerus equi Bι				in Pegaso] in pesago Mκ Mν; in pegazo Vκ sept.] merid. sept. Pπ; <i>corr. from</i> merid. Rα
44		Humerus equi] <i>corr. to</i> Sceach Bι				equi] <i>om.</i> Qα 18 0] <i>corr. to</i> 28 0 Bι 25 0] <i>corr. to</i> 13 0 Bι; 24 30 Qα; 25 30 Eμ sept.] merid. in al' sept. Pπ alato] <i>om.</i> Pτ
45		Denebcaytoz] Benepcautoz Mθ Oκ; Denebcaitoz Qα; Denebcayc ^{oz} Po; Denebcaycoz Vκ; Denecaydoz Pτ; Denechtar ^{ezz} Mν; Denepaytoz Bι; Denepcaicoz Rα Sβ; Denepcaitoz Eμ Mκ; Deneptaye ^{orum} Eδ; Deneptaytoz Dγ 22 0] <i>corr. to</i> 10 0 Bι 10 0] <i>corr. to</i> 22 0 Bι caytoz] caitoz Bι Eμ Oκ Rα(<i>later hand</i>) Sβ; cat ^{oz} Dγ; ceti Mκ				

Appendix I Catalogue of Stars

This appendix¹ lists all the stars found in the text, and in the lists of stars (= SL) organized by their modern constellations. It includes the following information:

- the modern abbreviated designation
- the modern right ascension and declination (remembering that this differs from the medieval positions because of the precession of the equinoxes by about 10 degrees);
- the modern full designation and common name(s)
- the Arabic transliterated name; this name in Arabic; the meaning of this name
- the medieval Latin name and its meaning
- variants of the Latin name as found in the text
- variants of the (Latinized) Arabic name as found in the text
- other names which seem unrelated to the Latin or Arabic as found in the text
- bibliographical references

For the last three sets of names, references are given noting where they are found in the text and star lists; there the apparatus criticus identifies the manuscripts in which the variant is actually found. Note: there is an index of Arabic-based and Latin-based names at the end of the appendix.

It has not been possible to assign a zodiacal sign to each star. Not only have their positions shifted over time, but some mss, particularly in the diagrams of the rete (Cap. 11, fig.), place the same star in two different signs, e.g., some have a star in Virgo, and others might have it in Libra.

SOURCES:

Storm Dunlop, *Atlas of the Night Sky* (London: HarperCollins, 2005) – for current English names
 Sharon Gibbs and George Saliba, *Planispheric Astrolabes from the National Museum of American History* (Washington: Smithsonian Institution Press, 1984)

¹ I would like to acknowledge the contributions which Paul Kunitzsch made to this appendix. His comments and suggestions were always very helpful.

Paul Kunitzsch, *Arabische Sternnamen in Europa* (Wiesbaden: Harrassowitz, 1959)

Paul Kunitzsch, "Three Dubious Stars in the Oldest European Table of Astrolabe Stars,"

Zeitschrift für Geschichte der Arabisch-Islamischen Wissenschaften, 13 (1999-2000), 57-69;

rpt. in his *Stars and Numbers, Astronomy and Mathematics in the Medieval Arab and Western Worlds*, Variorum CS 791 (Aldershot: Ashgate, 2004), text XIX.

Paul Kunitzsch, *Typen von Sternverzeichnissen in astronomischen Handschriften des zehnten bis vierzehnten Jahrhunderts* (Wiesbaden: Harrassowitz, 1966)

β And [01^h 09^m] [+35° 37']

β Andromedae / Mirach

Arabic: mi'zar / مئزر / "girdle [of Andromeda]"

Latin: *from the Arabic*

Mirach – Cap. 11 Fig.; SL 1; SL 1-A var.

Mirac – SL 1 var.; SL 1-A

Mirat – Cap. 11 Fig.

Myrach SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 67, 184; idem, *Typen*, pp. 55 (VIII-1) and 41 (VI-4).**δ Aqr** [22^h 55^m] [-15° 49']δ Aquarii / Scheat² [now officially "Skat"]

Arabic: as-sāq / الساق / "shin/shin-bone"

Latin: *from the Arabic*

Cenok – SL 1-A var.

Ocheath – SL 2 var.

Sceach – Cap. 11 Fig.; SL 1; SL 2

Scead – SL 1-A var.

Sceahc – Cap. 11 Fig.

Sceath – SL 1 var.; SL 2 var.

Scehach – SL 2 var.

Scehah – Cap. 11 Fig.

Scenath – SL 2 var.

Scezich – SL 1 var.

Schath – SL 1 var.

Scheat – SL 2 var.

Sechath – Cap. 11 Fig.

Seheach – SL 1-A var.

Senach – SL 2 var.

Sheach – SL 1-A

Shenath – SL 2 var.

Steach – SL 1 var.; SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 84; idem, *Typen*, pp. 56 (VIII-45) and 43 (VI-38).**α Aql** [19^h 51^m] [+08° 52']

α Aquilae / Altair

Arabic: an-nasr aṭ-ṭā'ir / النسر الطائر / "the flying eagle"

² This name has later also been associated with β Peg.

Latin: Vultur Volans / “the flying vulture”

Vlt^u Volans – Cap. 22 Fig. var

Vult^r – Cap. 22 Fig. var

Vultur Volans – Cap. 10, ln. 8; Cap. 10, ln. 15; Cap. 10 Fig.; Cap. 11 Fig.

from the Arabic

Abchair – SL 2 var.

Alcair – SL 1 var.; SL 2 var.

Alcar – Cap. 11 Fig.

Alcayr – SL 3-B var.

Alchair – Cap. 11 Fig.; SL 1 var.; SL 2 var.

Alkair – Cap. 11 Fig.

Alta – Cap. 11 Fig.

Althair – Cap. 11 Fig.; SL 3-A var.

Altaich – SL 1 var.

Altair – Cap. 10, ln. 15 var.; Cap. 10 Fig.; Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-A var.; SL 3-B var.

Altaire – Cap. 11 Fig.

Altam – SL 1-A var.

Altani – SL 1-A var.

Altar – Cap. 11 Fig.

Altayir – SL 2 var.; SL 3-A var.

Altayr – Cap. 10, ln. 15 var.; Cap. 10 Fig.; Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-A var.; SL 3-B var.

Altha – Cap. 11 Fig.

Althair – Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-A; SL 3-B

Althar – Cap. 11 Fig.

Althau – SL 3-B var.

Althayr – Cap. 11 Fig.; SL 1 var.; SL 1-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 81-82, 138-39; idem, *Typen*, pp. 56 (VIII-36), 28 (III-4), and 43 (VI-33).

α Ari [02^h 07^m] [+23° 28']

α Arietis / Hamal

from the Arabic

Enif³ – SL 1; SL 1-A

Enit – SL 1 var.

Enyl – SL 1 var.

Erut – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, p. 68; idem, *Typen*, pp. 55 (VIII-4), 41 (VI-6), 66 (IX-2), and 105 (XVI-6).

³ “Enif” is usually the Arabic name, or part of the Arabic name, for ε Peg (q.v.)

α Aur [05^h 17^m] [+46° 00'] α Aurigae / Capella, Alhailoth or AlhajothArabic: al-^ʿayyūq / العيوق / [unknown meaning]Latin: Ursa⁴ – Cap. 11 Fig.*from the Arabic*

Al – Cap. 11 Fig.

Alailoth – SL 1-A var.

Albailoth – SL 1 var.

Alcaioth – SL 2 var.

Alchailoch – SL 2 var.

Alh~ – Cap. 11 Fig.

Alha – Cap. 11 Fig.

Alhae – Cap. 11 Fig.

Alhaioc – Cap. 11 Fig.; SL 3-A var.

Alhailoch – SL 2 var.; SL 3-A; SL 3-B var.

Alhailoh – SL 1; SL 1-A

Alhailos – Cap. 11 Fig.; SL 3-A var.

Alhailot – Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 2 var.; SL 3-A var.; SL 3-B

Alhailoth – Cap. 11 Fig.; SL 1 var.; SL 2; SL 3-B var.

Alhailoth – SL 2 var.

Alhalach – SL 2 var.

Alhalot – SL 3-B var.

Alharoch – SL 1 var.

Alharoth – SL 2 var.

Alhaut(?) – Cap. 11 Fig.

Alhaye – Cap. 11 Fig.

Alhayeth – SL 1 var.

Alhayot – Cap. 11 Fig; SL 1-A var.; SL 2 var.

Alhayoth – SL 1 var.

Alkaiot – SL 1-A var.

Althailoth – SL 2 var.

Malhailot – SL 1-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 71, 119-121; idem, *Typen*, pp. 55 (VIII-10), 28 (III-25) and 42 (VI-12). **α Boo** [14^h 16^m] [+19° 11'] α Boötis / ArcturusArabic: as-simāk ar-rāmih / السمك الرامح / “the *simāk* armed with a lance”

⁴ “Ursa” (“bear”) is a name given to a variety of stars in Ursa Maioris and Ursa Minoris. Usually, however, in these rete diagrams Ursa is found in Cancer or Leo, rather than in Gemini, as here. The position in the figure in the two mss is that of α Aur.

Latin: *from the Arabic*

Ahamath – SL 2 var.
 Al – Cap. 11 Fig.
 Alchimet – Cap. 11 Fig. Ev⁵ M η ⁶;
 Alcramech – SL 1 var.;
 Alhimet – Cap. 11 Fig.
 Alm – Cap. 11 Fig.
 Alr – Cap. 11 Fig.
 Alř – Cap. 11 Fig.
 Alra – Cap. 11 Fig.
 Alra' – Cap. 11 Fig.
 Alram' – Cap. 11 Fig.
 Alramch – SL 2 var.
 Alramco – SL 2 var.
 Alrame' – Cap. 11 Fig.
 Alramec – SL 3-B
 Alramech – Cap. 11 Fig.; SL 1 var.; SL 1-A; SL 2 var.; SL 3-A; SL 3-B var.
 Alrameh – Cap. 11 Fig.
 Alrameht – SL 3-A var.
 Alramek – SL 1-A var.
 Alramer – SL 3-B var.
 Alramet – Cap. 11 Fig.; SL 3-B var.
 Alrameth – Cap. 11 Fig.; SL 1; SL 1-A var.; SL 2
 Alramich – Cap. 11 Fig.
 Alranech – Cap. 11 Fig.
 Alrb' – Cap. 11 Fig.
 Alremech – SL 1 var.
 Aramec – SL 3-B var.
 Aramech – SL 1 var.
 Arameth – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 79, 133-135; idem, *Typen*, pp. 55 (VIII-28), 28 (III-1) and 42 (VI-26).

α CMa [06^h 45^m] [-16° 43']

α Canis Majoris / Sirius, Alhabor

Arabic: al-^ʿabūr / العبور / “[Sirius] who has crossed [the Milky Way]”

Latin: *from the Arabic*

Alabor – SL 1-A var.
 Albabor – SL 1 var.
 Alchabor – Cap. 11 Fig.

⁵ Variant of “alchimech alramech” (*Typen*, p. 90)?

⁶ It appears that the names for α Boo/Alramech and α Vir/Alchimet have been reversed in ms M η .

Algabor – Cap. 11 Fig.
 Alhabez – Cap. 11 Fig.
 Alhabor – Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-A; SL 3-B
 Alhaboz – Cap. 11 Fig.
 Alhaioz – SL 3-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 72, 117-119; idem, *Typen*, pp. 55 (VIII-13), 28 (III-14) and 42 (VI-14).

α CMi [07^h 39^m] [+05° 13']

α Canis Minoris / Procyon, Algomeiza

Arabic: al-ḡumaiṣā' / الغميصاء / “the bleary-eyed [woman]”

Latin: *Moriens Filius*⁷

Moriens Filius – Cap. 11 Fig.
Prochion – Cap. 11 Fig.

from the Arabic

Algamensa – SL 1 var.
 Algemeza – Cap. 11 Fig.
 Algociā – SL 2 var.
 Algocina – SL 2 var.
 Algoesa – SL 2 var.
 Algom~ – Cap. 11 Fig.
 Algomaza – Cap. 11 Fig.
 Algomeira – SL 1 var.
 Algomeisa – Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-A var.; SL 3-B var.
 Algomeiza – Cap. 11 Fig.; SL 1; SL 1-A var.; SL 2; SL 3-A; SL 3-B
 Algomera – Cap. 11 Fig.
 Algomerza – Cap. 11 Fig.; SL 1-A var.
 Algomeuza – Cap. 11 Fig.
 Algomeyra – SL 2 var.
 Algomeysa – Cap. 11 Fig.; SL 2 var.
 Algomeyza – Cap. 11 Fig.; SL 1 var.; SL 1-A; SL 2 var.; SL 3-B var.
 Algomeza – Cap. 11 Fig.; SL 3-B var.
 Algomezim – SL 3-B var.
 Algomezun – SL 3-B var.
 Algomiza – SL 2 var.
 Algomzi – SL 3-B var.

⁷ Or “Filius moriens” – a rare name for this star. See Fritz J. Pedersen, “A Latin Star-List for Toledo,” *Cahiers de l’Institut d’Moyen-Âge Grec et Latin*, 64 (1994), p. 60: table, star 6; and idem, *The Toledan Tables*, *Historisk-filosofiske Skrifter* 24:4 (Copenhagen, 2002), part 4, p. 1500: table LA 13, star 6. In these tables α CMa is known as “Filius vivens”. There is some possibility that “Filius moriens” is α CMa, and “Filius vivens” is α CMi – in our text it is impossible to distinguish the two. My thanks to Paul Kunitzsch for tracking down this identification.

Algoniza – SL 1-A var.
 Algotian – SL 2 var.
 Algoumeiza – Cap. 11 Fig.
 Algumeiza – Cap. 11 Fig.
 Alsehere – SL 1 var.⁸

Bibliography: Kunitzsch, *Sternnamen*, pp. 73-74, 160-161; idem, *Typen*, pp. 55 (VIII-15), 28 (III-21) and 42 (VI-16).

δ Cap [21^h 47^m] [-16° 08']

δ Capricorni / Deneb Algedi

Arabic: *ḍanab al-jady* / ذنب الجدي / “tail of the goat”

Latin: *Cauda Capricorni* / “tail of the goat/Capricorn”

Cauda Capricorni – Cap. 11 Fig.

from the Arabic:

Deneba – Cap. 11 Fig.
 Denebagedi – Cap. 11 Fig.; SL 1 var.
 Denebaldegi – Cap. 11 Fig.
 Denebalg~ – Cap. 11 Fig.
 Denebalgadi – SL 2 var.
 Denebalgeda – SL 2 var.
 Denebalgedi – Cap. 11 Fig.; SL 1; SL 1-A; SL 2
 Denebalgedy – SL 1 var.
 Denebalgodi – SL 2 var.
 Denebalgydi – SL 2 var.
 Denebaligedi – SL 2 var.
 Denehal – Cap. 11 Fig.
 Denenalgedi – SL 1 var.
 Deuebalgedi – SL 1-A var.; SL 2 var.
 Libedaneb – SL 3-B var.
 Libedeneb⁹ – Cap. 11 Fig.; SL 1; SL 3-A var.; SL 3-B
 Libedenep – SL 3-A var.
 Libedenes – SL 1 var.
 Libederneb – SL 1 var.
 Libedydop – SL 1 var.
 Liberneneb – Cap. 11 Fig.
 Libideneb – SL 3-A; SL 3-B var.

⁸ From “aš-šī‘rā”, i.e., Sirius. Kunitzsch, *Typen*, p. 57 (VIII-15, note).

⁹ While Libedeneb is found many times in the rete diagrams and also on actual astrolabes; it is a corruption in Latin of Denebalgedi.

Sometimes Denebalgedi and Libedeneb are treated as two different stars, as in Kunitzsch, *Typen*, p. 46: VIII-40 (based on III-18) and VIII-44 (based on VI-35). The compiler of list VIII worked from at least two different sources and did not realize that he was dealing with the same star.

Libideuech – SL 3-A var.
 Lybedeneb – SL 1 var.
 Zenebalgedi – SL 1-A var.
 Zinebalgedi – SL 1-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 83-84, 155-156; idem, *Typen*, pp. 56 (VIII-40 and 44), 28 (III-18) and 43 (VI-35).

α Cas [00^h 41^m] [+56° 32']

α Cassiopeiae / Schedar, Schedir, Shedir

Arabic: ṣadr / صدر / “breast [of Cassiopeia]”

Latin: *from the Arabic*

Sc~ – Cap. 11 Fig.
 Sced – Cap. 11 Fig.
 Scedar – Cap. 11 Fig.
 Sceder – SL 1; SL 1-A
 Scedry – SL 1 var.
 Seder – SL 1-A var.
 Sedes – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 66, 204-205; idem, *Typen*, pp. 56 (VIII-49) and 41 (VI-5).

α Cep [21^h 19^m] [+62° 35']

α Cephei / Alderamin

Arabic: aḍ-ḍirā^c al-yamīn / الذراع اليمين / “the right arm”¹⁰

Latin: *from the Arabic*

Abera – SL 1-A var.
 Abhena – SL 1-A var.
 Abhera – SL 1-A var.
 Adiran – SL 1 var.
 Ahzera – SL 1 var.
 Adria – SL 1 var.
 Aldera – Cap. 11 Fig.
 Aldira – Cap. 11 Fig.; SL 1 var.; SL 1-A var.
 Aldirab – SL 1-A var.
 Aldiran – SL 1; SL 1-A var.

¹⁰ There is a problem with the etymology here, since it does not accord with correct Arabic grammar. The form *ḍirā^c* does not occur in any of the known sources, such as Ptolemy’s star catalogue in the *Almagest*, for a star in Cepheus. See Paul Kunitzsch, “John of London and his Unknown Arabic Source,” *Journal for the History of Astronomy*, 17 (1986), 54-55, and idem, “The Star Catalogue Commonly Appended to the Alfonsine Tables,” *ibid.*, p. 93. [PK]

Aldria – SL 1 var.
 Aldura – SL 1 var.
 Aldyran – SL 1 var.
 Alhera – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 82-83, 110-111; idem, *Typen*, pp. 56 (VIII-42) and 41 (VI-1).

α Cet [03^h 03^m] [+04° 05']

α Ceti / Menkar

Arabic: minḵar / منخر / “nostril [of Cetus / the whale]”

Latin: naris cethi/ceti

from the Arabic

Algenip¹¹ – Cap. 11 Fig.
 Azerikar¹² – Cap. 11 Fig.
 Mekar – Cap. 11 Fig.; SL 1; SL 1-A var.
 Melzar – SL 1-A var.
 Memkar – Cap. 11 Fig.; SL 2 var.
 Menbair – Cap. 11 Fig.
 Menc/t – Cap. 11 Fig.
 Mencar – Cap. 11 Fig.; SL 2 var.
 Menchar – SL 1 var.; SL 2 var.
 Menhar – Cap. 11 Fig.
 Menhkar – SL 1-A var.
 Menk – Cap. 11 Fig.
 Menkach – SL 1 var.
 Menkar – Cap. 11 Fig.; SL 1-A; SL 2
 Menkarz – SL 2 var.
 Menkath – SL 1 var.
 Menkaz – SL 2 var.
 Menkhar – SL 2 var.
 Menter – Cap. 11 Fig.
 Mentrar – SL 1 var.
 Merchm – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 69, 181; idem, *Typen*, pp. 55 (VIII-6) and 41 (VI-7).

¹¹ Misnamed: Algenip (α Persei / Algenib) has a declination of about +50°. Kunitzsch, *Sternnamen*, pp. 69, 113.

¹² Erroneous reading of the exemplar by the scribe? “M” becomes “Az” and “n” becomes “ri”?

β Cet [00^h 44^m] [-17° 59']

β Ceti / Deneb Kaitos

Arabic: *ḍanab qīṭūs al-janūbī* / ذنب قيطوس الجنوبي / “the southern tail of the sea-monster/whale”

ι Cet [00^h 19^m] [-08° 49']

ι Ceti / Deneb Kaitos Schemali

Arabic: *ḍanab qīṭūs aš-šamālī* / ذنب قيطوس الشمالي / “the northern tail of the sea-monster/whale”

NOTE: it is not possible to distinguish between these two identifications because of the inaccuracies of the diagrams although the name is normally associated with the brighter β Cet

Latin Cauda Ceti / “ the tail of the sea-monster/whale”

Cauda Ceti – Cap. 11 Fig.

Cauda Chitor – Cap. 11 Fig.

from the Arabic

Benepcautoz – SL 3-B var.

Debnecaitoz – SL 3-A var.

Deneb – Cap. 11 Fig.

Denebcaithoz – SL 1 var.

Denebcaitoz – Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-A var.; SL 3-B var.

Denebcaycoz – SL 3-B var.

Denebcaythos – SL 2 var.

Denebcaytos – Cap. 11 Fig.; SL 2 var.

Denebcaytoz – Cap. 11 Fig.; SL 2 var.; SL 3-B

Denebfaytos – Cap. 11 Fig.

Denebizaitoz – SL 1-A var.

Denebkaicoz – SL 1-A var.

Denebkaim – Cap. 11 Fig.

Denebkaithos – Cap. 11 Fig.

Denebkaithoz – SL 2 var.

Denebkaiton – SL 1 var.

Dene bkaitor – SL 1 var.

Denebkaitos – Cap. 11 Fig.

Denebkaitoz – Cap. 11 Fig.; SL 1; SL 1-A; SL 1-A var.; SL 2 var.

Denebkantoz – SL 2 var.

Denebkartoz – Cap. 11 Fig.; SL 2 var.

Denebkaudos – SL 2 var.

Denebkaudoz – SL 2 var.

Denebkaythoz – SL 1 var

Denebkaytor – Cap. 11 Fig.; SL 2 var.

Denebkaytos – SL 1-A var.

Denebkaytoz – Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 2

Denebkidoz – SL 1 var.

Denecaitoz – SL 3-A var.

Denecaydoz – SL 3-B var.
 Denechtar^{ezz} – SL 3-B var.
 Denefbaychos – Cap. 11 Fig.
 Denepaytoz – SL 3-B var.
 Denepcaicoz – SL 3-B var.
 Denepcaitoz – SL 3-A; SL 3-B var.
 Denepkayza – SL 1 var.
 Deneptaye^{orum} – SL 3-B var.
 Deneptaytoz – SL 3-B var.
 Donec cartor – SL 2 var.
 Donet carthos – SL 2 var.
 Donet cartoiz – SL 2 var.
 Tenebraitoz – Cap. 11 Fig.
 Veneb kaitoz – Cap. 11 Fig.

Bibliography: Kunitzsch, *Typen*, v. pp. 56 (VIII-48) and 28 (III-17); β : idem, p. 43 (VI-40);
 idem, *Sternnamen*, pp. 66, 66-67, 156-157.

ζ Cet [01^h 51^m] [-10° 20']

Note: at some point this star became duplicated with two different names. While they have more or less the same right ascension, they have quite distinct declinations when plotted on the rete diagrams.¹³

ζ Ceti (1) / Baten Kaitos

Arabic: baṭn qīṭūs / بطن قيطوس / “belly of the sea-monster/whale”

Latin: Venter Ceti / “belly of the sea-monster/whale”

Venter Chator – Cap. 11 Fig.
 Venter Chitor – Cap. 11 Fig.
 Venter Caytet – Cap. 11 Fig.

from the Arabic

Bacencaytoz – Cap. 11 Fig.
 Bachenkaytoz – Cap. 11 Fig.
 Bantheukaitos – Cap. 11 Fig.
 Baratenkaytoz – Cap. 11 Fig.
 Bataikaitos – SL 1-A var.
 Batecay~ – SL 1-A var.
 Batekaytoz – SL 1 var.
 Batencathoz – SL 1 var.

¹³ In 29 of the astrolabe diagrams in this text there are two different pointers to ζ Cet. In some tables the two stars differ by 1° 30' in longitude and 0° 30' in latitude; in most diagrams the stars are 10° to 20° apart in longitude. Kunitzsch's star list (*Typen*, p. 55 [VIII-2 and 3]) traces the confusion to a conflation of two earlier lists: III-16 (p. 28) and VI-3 (p. 41). See also Kunitzsch, *Sternnamen*, p. 67 and Gibbs/Saliba, p. 218.

Batencaytoz – Cap. 11 Fig.
 Batenk' – Cap. 11 Fig.
 Batenkaatoz – SL 1 var.
 Batenkaithos – Cap. 11 Fig.
 Batenkaitoz – Cap. 11 Fig.; SL 1 var.; SL 1-A var.
 Batenkartoz – Cap. 11 Fig.; SL 1 var.
 Batenkatoz – Cap. 11 Fig.
 Batenkautos – Cap. 11 Fig.
 Batenkaytar – Cap. 11 Fig.
 Batenkayton – Cap. 11 Fig.
 Batenkaytor – SL 1 var.
 Batenkaytoz – Cap. 11 Fig.; SL 1; SL 1-A
 Bathebiro – SL 1 var.
 Bathekaidoz – SL 1 var.
 Bathekardoz – SL 1 var.
 Bathenaytoz – Cap. 11 Fig.
 Batenk' – Cap. 11 Fig.
 Bathenkaitoz – Cap. 11 Fig.
 Bathenkaythos – Cap. 11 Fig.
 Bathenkaythoz – SL 1 var.
 Bathenkayto~ – Cap. 11 Fig.
 Bathenkaytoz – Cap. 11 Fig.; SL 1 var.
 Daventanet – Cap. 11 Fig.
 Futekaytoz – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 67, 148; idem, *Typen*, p. 55 (VIII-2) and 41 (VI-3).

ζ Ceti (2) / Pantakaytoz

Image: venter cethi/ceti, “the belly of the [Constellation of the] Whale”

Latin: *from the Arabic*

Paandoz – SL 2 var.
 Pacacaitos – SL 2 var.
 Pacacaitoz – SL 2 var.
 Pacancaitoz – SL 3-A var.
 Padaithos – SL 2 var.
 Pancacayt' – SL 3-B var.
 Pancancantoz – SL 3-A var.
 Pancatacoz – SL 3-B var.
 Pancildaicon – SL 1 var.
 Pantacaidoz – SL 1 var.
 Pantacaitoz – SL 1 var.
 Pantacay – SL 1 var.
 Pantacayt' – SL 3-B var.
 Pantacaytos – SL 3-B var.

Pantacaytoz – SL 1 var.; SL 2 var.
 Pantachaitos – SL 2 var.
 Pantachayt~ – SL 3-B var.
 Pantacratoz – SL 3-B var.
 Pantaikatoz – Cap. 11 Fig.
 Pantaitoz – SL 2 var.
 Pantakaatoz – SL 1 var.
 Pantakai – Cap. 11 Fig.
 Pantakaitoz – SL 1; SL 2 var.
 Pantakay – Cap. 11 Fig.
 Pantakaytor – SL 1 var.
 Pantakaytoz – Cap. 11 Fig.; SL 2
 Pantaketicoz – Cap. 11 Fig.
 Pantancaitos – SL 3-B var.
 Pantancaitoz – SL 3-B var.
 Pantanc[ay]ta – SL 1 var.
 Pantankaytos – SL 3-B
 Pantat^atoz – SL 3-B var.
 Pantaytoz – SL 2 var.
 Pantekai – Cap. 11 Fig.
 Pantenkait' – Cap. 11 Fig.
 Panth' – Cap. 11 Fig.
 Panthacaythos – SL 2 var.
 Panthacayton – Cap. 11 Fig.
 Panthacaytos – SL 2 var.
 Panthakai – Cap. 11 Fig.
 Panthakaithos – SL 2 var.
 Panthakaitos – SL 2 var.
 Panthakartos – SL 2 var.
 Panthakay – Cap. 11 Fig.
 Panthakaythos – Cap. 11 Fig.
 Panthakaythoz – SL 1 var.
 Panthakaytor – SL 1 var.
 Panthakaytoz – SL 1 var.
 Pantkaytoz – SL 2 var.
 Patacaitoz – SL 2 var.
 Patakam – SL 2 var.
 Patancaitos – SL 3-B var.
 Patancaitoz – SL 3-A
 Patencacaytoz – SL 1 var.
 Paucartoz – SL 1 var.
 Pentant'a – SL 3-B var.
 Pitaucaitoz – SL 3-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 67, 148; idem, *Typen*, pp. 55 (VIII-3) and 28 (III-16).

α CrB [15^h 35^m] [+26° 43']

α Coronae Borealis / Alfeca, Alphecca

Arabic: nayyir al-fakka / نير الفكة / “the bright [star] of the broken [ring of stars]”

Latin: Corona – Cap. 11 Fig.

from the Arabic

Afeca – Cap. 11 Fig.; SL 1

Alf' – Cap. 11 Fig.

Alfa' – Cap. 11 Fig.

Alfaca – Cap. 11 Fig.

Alfaz – Cap. 11 Fig.

Alfe – Cap. 11 Fig.

Alfeca – Cap. 11 Fig.; SL 1-A var.; SL 2

Alfecas – Cap. 11 Fig.

Alfecha – SL 1 var.; SL 2 var.

Alfeka – SL 1 var.; SL 2 var.

Alfera – Cap. 11 Fig.; SL 3-A var.

Alfeta – Cap. 11 Fig.; SL 1 var.

Alfetaha, id est stella lucida in corona sept[entri]onali – Cap. 11 Fig.

Alfita – SL 1 var.

Alpheca – SL 1 var.

Alphefacta – SL 2 var.

Alpheta – SL 1 var.

Efa' – Cap. 11 Fig.

Efeca – Cap. 11 Fig.

Effeca – Cap. 11 Fig.

Effecta – SL 3-B var.

Effefa – SL 3-A var.

Elfa' – Cap. 11 Fig.

Elfaca – Cap. 11 Fig.

Elfeca – Cap. 11 Fig.; SL 1-A; SL 3-A; SL 3-B

Elfeka – Cap. 11 Fig.

Elfeol – Cap. 11 Fig.

Elfera – Cap. 11 Fig.; SL 3-B var.

Elfeta – Cap. 11 Fig.; SL 1-A; SL 2 var.; SL 3-B var.; Cap. 22 Fig. var.

Ellefeca – SL 2 var.

Elpert – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 79, 131-132; idem, *Typen*, pp. 55 (VIII-298), 28 (III-2) and 43 (VI-27).**γ Crv** [12^h 16^m] [-17° 33']

Note: Algorab and Corvus began as the same star but became two in the star table associated with this text. Both stars are found in the diagrams in 39 of the mss studied here.

γ Corvi (1)¹⁴ / Corvus

Latin: Corvus / “the raven [or crow]”

Cauda Leonis¹⁵ – Cap. 11 Fig.

Chorus – Cap. 11 Fig.

Corus – Cap. 11 Fig.

Coruus – Cap. 11 Fig.; SL 1; SL 1-A

Bibliography: Kunitzsch, *Typen*, pp. 55 (VIII-22) and 42 (VI-24).

 γ Corvi (2) / Algorab¹⁶, Gienah Gurab

Arabic: janāḥ al-ḡurāb al-ayman / جناح الغراب الأيمن / “the right wing of the raven”

Latin: [Dextra] Ala Corvi / “[right] wing of the raven”

Alacorni – Cap. 11 Fig.

Ala Corui – Cap. 11 Fig.

Cauda¹⁷ – Cap. 11 Fig.

from the Arabic

Alborap corvus – SL 1 var.

Algari – SL 3-A var.

Alglari – SL 3-A var.; SL 3-B var.

Alglor – SL 3-A var.

Algoeab – SL 3-B var.

Algor~ – Cap. 11 Fig.

Algorab – Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-B

Algorab cori – SL 1 var.

Algorab corvus – SL 1 var.

Algoraba corvus – SL 1 var.

Algorach – SL 1 var.

Algurab – SL 2 var.; SL 3-B var.

Algurah – SL 3-B var.

Algurali – SL 3-A; SL 3-B var.

Corvus algorab – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 78, 116, 166; idem, *Typen*, pp. 55 (VIII-25) and 28 (III-13).

¹⁴ See Kunitzsch, *Typen*, p. 55 (VIII-22 and 25). Corvus (VIII-22) derives from list VI-24 (p. 42), and Algorab (VIII-25) derives from list III-13 (p. 28)

¹⁵ Misnamed. The pointer in these 2 mss is definitely Corvus. Cauda Leonis (or simply Cauda) refers to a different star, i.e., β Leonis. But the declination of β Leo is +14° 39', much farther north than Corvus.

¹⁶ Today, Algorab is the official name of δ Crv.

¹⁷ Misnamed. The pointer in these 2 mss is definitely Gienah. Cauda (or Cauda Leonis) refers to a different star, i.e., β Leonis. But the declination of β Leo is +14° 39', a long way farther north than Gienah.

α Cyg [20^h 41^m] [+45° 17']

α Cygni / Aridf, Deneb

Arabic: (1) ar-ridf / الردف / “the one sitting behind the rider [on a horse]”

(2) ḍanab ad-dajāja / الذبابة / “tail of the hen”

Latin: *from the Arabic*

- (1) Aleif – SL 3-B var.
 Alrif – Cap. 11 Fig.; SL 1; SL 3-A; SL 3-B
 Alyif – SL 3-B var.
 Astif – SL 1 var.

- (2) Addig~ – SL 2 var.
 Addigega – SL 2 var.
 Addigege – SL 1; SL 1-A var.; SL 2
 Addigge – SL 1 var.; SL 2 var.
 Addygege – SL 1 var.
 Adigege – SL 1 var.; SL 1-A var.
 Aldigege – SL 1 var.; SL 1-A; SL 2 var.
 Aldigene – SL 2 var.
 Aldira – Cap. 11 Fig.
 De – Cap. 11 Fig.
 Dea? – Cap. 11 Fig.
 Den – Cap. 11 Fig.
 Dena/Deta Alhabet – Cap. 11 Fig.
 Dene – Cap. 11 Fig.
 Deneb – Cap. 11 Fig.
 Deni – Cap. 11 Fig.
 Dens – Cap. 11 Fig.
 Dera – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 82, 143-144, 155; idem, *Typen*, pp. 56 (VIII-38), 28 (III-8) and 43 (VI-36).

ε Del [20^h 33^m] [+11° 18']

ε Delphini / Deneb Dulfim

Arabic: ḍanab ad-dulfīn / ذنب الدلفين / “tail of the dolphin”

Latin: Delphinus, Delfinus / “dolphin”; *also* Cauda Delphini / “tail of the dolphin”

- Del – Cap. 11 Fig.; Cap. 22 Fig. var
 Delf/Delf' – Cap. 11 Fig.; Cap. 22 Fig. var
 Delfi' – Cap. 22 Fig. var
 Delfim – Cap. 11 Fig.
 Delfin – Cap. 11 Fig.; Cap. 22 Fig. var; SL 1; SL 1-A
 D[e]lfin – Cap. 11 Fig.
 Delfinus – Cap. 11 Fig.; SL 1 var.
 Delfⁿ – Cap. 11 Fig.

Delfyn – SL 1 var.; SL 1-A var.
 Delphin – Cap. 11 Fig.; SL 1 var.; SL 1-A var.
 Delphinus – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 82, 156; idem, *Typen*, pp. 56 (VIII-37) and 28 (III-5).

? Del

The lists of stars sometimes include a second star with the name “Delfin” (and variants), but set in the sign of Aquarius.

SL 1 has both (i.e., ϵ Del in Capricorn and the second Delfin in Aquarius). SL 1-A has only the first (ϵ Del) and not the second. SL2, SL 3-A, and SL 3-B do not list the first “Delfin” in Capricorn but do list the second one in Aquarius. It is impossible to distinguish between the two as far as the diagrams of the retes are concerned, since the drawings are too general.

Kunitzsch suggests that this second star might be an erroneous duplicate of either ϵ Del (*Typen*, p. 58, note to 39), or γ Del (*Typen*, p. 46, note to 34). He also notes (p. 46) that Emmanuel Poulle suggests that this second star might be δ Del (“Peut-on dater”, p. 314).

Latin: Delphinus, Delfinus
 De – SL 1 var.
 Delfin – SL 1; SL 2; SL 3-A var.; SL 3-B
 Delfium – SL 2 var.
 Delfyn – SL 1 var.
 Delphil – SL 2 var.
 Delphin – SL 2 var.; SL 3-A; SL 3-B

Bibliography: Kunitzsch, *Sternnamen*, p. 82; idem, *Typen*, pp. 56 (VIII-41) and 43 (VI -34); Emmanuel Poulle, “Peut-on dater les astrolabes médiévaux?” *Revue d’histoire des sciences et de leurs applications*, 9 (1956), 301-322.

γ Dra [17^h 57^m] [+51° 29']

γ Draconis / “Rastaban”¹⁸ or Eltanin

Arabic: ra’s at-tu^cbān / رأس الثعبان / “the head of the serpent”

Latin Cap[ud Serpentis] – Cap. 11 Fig.
 Cap[ud] S[erpentis] – Cap. 11 Fig.

from the Arabic

Batsaben – SL 1 var.
 Beastaben – SL 2 var.
 Baztaben – SL 1 var.
 Mzcalen – SL 1 var.

¹⁸ Rastaban was the name used for γ Dra in the middle ages; it is now used for β Dra. The right ascensions of the two stars are less than 30 minutes apart, and their declinations less than 1 degree.

Rahtaben – SL 1 var.
 Rartaben – SL 2 var.
 Rathaben – SL 2 var.
 Ratzhaben – SL 2 var.
 Razaben – SL 1 var.
 Razaraben – SL 1 var.
 Razazaben – SL 1 var.
 Razcaben – SL 1 var.; SL 2 var.
 Razdaben – SL 1 var.; SL 2 var.
 Raztaben – SL 1; SL 2
 Raztabeu – SL 2 var.
 Razthaben – SL 2 var.
 Taben – Cap. 11 Fig.; SL 1-A
 Thaben – SL 1-A var.
 Tova – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 197-198; idem, *Typen*, pp. 55 (VIII-34), 58 and 43 (VI-31)

θ Eri [02^h 58^m] [-40° 18']

θ Eridani / Acamar¹⁹

Arabic: āḵir an-nahr / آخر النهر / “end of the river [Eridanus]”

Latin: Finis Fluxus / “end of the flowing [i.e. river Eridanus]”

Finis – Cap. 11 Fig.
 Finis Arietis – Cap. 11 Fig.
 Finis fluxus – Cap. 11 Fig.; SL 1
 Finis fuxus – SL 1 var.
 Fluxus – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 69 and 99; idem, *Typen*, p. 55 (VIII-5).

τ² Eri [02^h 51^m] [-21° 00']

τ² Eridani²⁰ / Angetenar

Arabic: ʿarjat an-nahr / عرجة النهر / “turn of the river”

Latin: *from the Arabic*

Agentenar – Cap. 11 Fig.
 Algetenar – Cap. 11 Fig.; SL 1; SL 1-A
 Algetenor – SL 1 var.
 Algeteuan – Cap. 11 Fig.
 Algethenar – Cap. 11 Fig.

¹⁹ Acamar/θ Eri was formerly named Acherna, from the same Arabic root, but this name has now been transferred to α Eri.

²⁰ Sometimes identified as γ Eridani. Kunitzsch, *Sternnamen*, p. 70; idem, *Typen*, p. 55 (VIII-8).

Angetenar – Cap. 11 Fig.; SL 1 var.
 Augea – Cap. 11 Fig.
 Augekanar – SL 1-A var.
 Augekauar – SL 1-A var.
 Augenenar – Cap. 11 Fig.
 Augerenax – Cap. 11 Fig.
 Augetanar – SL 1-A var.
 Augetena – Cap. 11 Fig.; SL 1 var.
 Augetenar – Cap. 11 Fig. SL 1 var.; SL 1-A var.
 Augetonar – SL 1 var.
 Augethanar – SL 1 var.
 Alhaiot²¹ – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, p. 142; idem, *Typen*, pp. 55 (VIII-8) and 41 (VI-9).

α Gem [07^h 35^m] [+31° 53']

α Geminorum / Castor

Arabic: ra's al-jauzā' / رأس الجوزاء / "head of Gemini"

Latin: *from the Arabic*

Balzungense – SL 2 var.
 Bazalgenze – SL 1 var.
 Bazalgeuze – SL 1 var.; SL 2 var.
 Bazelgeuze – SL 1-A
 Bazilgeuse – SL 1 var.
 Nasalgenze – SL 2 var.
 Racalgenze – SL 1 var.
 Rafaligence – SL 1 var.
 Ragalgeuze – SL 1 var.
 Ratalgeuze – SL 2 var.
 Ratarlem – SL 1-A var.
 Rathalgeuze – SL 2 var.
 Razagenze – SL 1 var.
 Razageuze – SL 2 var.
 Razalevze – SL 1 var.
 Razalgenze – SL 2 var.
 Razalgeuze – SL 1; SL 2
 Raztaben – SL 1-A var.
 Raztaten – SL 1-A var.
 Rozangente – SL 1 var.
 Tazageuze – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, p. 161; idem, *Typen*, pp. 55 (VIII-14) and 41 (VI-15).

²¹ Misnamed: Alhaiot (α Aurigae / Capella / Alhailoth) has a declination of about +45°, while the pointer in Ev is about -15°; its right ascension is also about 1 hour greater.

α Hya [09^h 28^m] [-08° 40'] α Hydrae / Alfard, AlphardArabic: al-fard / الفرد / “the solitary one”²²Latin: *from the Arabic*

Alf~ – Cap. 11 Fig.

Alfara – SL 3-B var.

Alfarad – Cap. 11 Fig.

Alfarat – SL 1 var.

Alfarath – Cap. 11 Fig.

Alarch – SL 2 var.

Alfard – SL 1-A; SL 3-A; SL 3-B var.

Alfaret – SL 2 var.

Alfart – Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-B

Alfarta – SL 2 var.

Alfarth – SL 1 var.

Alferam – SL 2 var.

Alferat – SL 2 var.

Alferaz²³ – Cap. 11 Fig.; SL 2 var.

Alferit – SL 2 var.

Alfert – Cap. 11 Fig.

Alfrad – SL 1-A var.

Alfrat – Cap. 11 Fig.; SL 2 var.

Alpharat – Cap. 11 Fig.

Alpharth – SL 2 var.

Arfart – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen* 76, 130-131; idem, *Typen*, pp. 55 (VIII-19) and 42 (VI-20). **α Leo** [10^h 08^m] [+11° 58'] α Leonis / Regulus

Arabic: qalb al-asad / قلب الاسد / “heart of the lion”

Latin: Cor Leonis

Cor Leonis – Cap. 11 Fig.; SL 1-A; SL 3-B

Leo – Cap. 11 Fig.

from the Arabic

Albalezed – SL 2 var.

Cabalezed – SL 1

Cabeleret – SL 1 var.

²² Sometimes styled “horse”, i.e., Pegasus from a confusion with the Arabic for horse *al-faras* (فرس).²³ “Alferaz” normally refers to β Peg (q.v.). Kunitzsch, *Typen*, pp. 48, 56.

Calbalacer – SL 3-B var.
 Calbalacet – SL 3-A
 Calbalazed – SL 2 var.
 Calbalezath – SL 1 var.
 Calbalezeb – SL 2 var.
 Calbalezed – SL 1 var.; SL 2
 Calbalezet – SL 1 var.; SL 2 var.
 Calbalezeth – SL 1 var.
 Calbalized – SL 2 var.
 Calbalzed – SL 2 var.
 Calbeleleret – SL 1 var.
 Calbelezed – SL 2 var.
 Calbezed – SL 2 var.
 Casbeteced – SL 1-A var.
 Colbalerech – SL 1 var.
 Kalbalezet – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 168-160; idem, *Typen*, pp. 55 (VIII-20), 28 (III-23) and 42 (VI-21).

β Leo [11^h 49^m] [+14° 34']

β Leonis / Denebola

Arabic: *ḍanab al-asad* / ذنب الاسد / “tail of the lion”

Latin: *Cauda Leonis* / “tail of the lion”

Caud' – Cap. 11 Fig.
 Cauda – Cap. 11 Fig.; SL 1-A
 Cauda Leonis – Cap. 11 Fig.; SL 1-A var.
 Tauda – SL 1-A var.

from the Arabic

Benbalezed – SL 2 var.
 Benbalezet – SL 2 var.
 Benebalezed – SL 2 var.
 Denabalezet – SL 1 var.
 Denebakeyzech – SL 1 var.
 Denebalazed – SL 1 var.
 Denebalered – SL 2 var.
 Denebalezed – SL 1; SL 2
 Denebalezet – SL 2 var.
 Denebalozed – SL 2 var.
 Denebazeleth – SL 1 var.
 Denebolezad – SL 1 var.
 Deneb[*illeg.*]zed – SL 1 var.
 Deuebalezzech – SL 1 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 77-78, 157; idem, *Typen*, pp. 55 (VIII-24) and 42 (VI-22).

α Lyr [18^h 37^m] [+38° 47']

α Lyrae / Wega, Vega

Arabic : an-nasr al-wāqī^c / النسر الواقع / “the falling [*or* alighting] eagle”

Latin: Vultur Cadens / “the Falling Vulture”

Vultur Cadens – Cap. 11 Fig.

from the Arabic

Albega – SL 2 var.

Alguega – SL 2 var.

Alimega – SL 2 var.

Aliwega – SL 2 var.

Almega – SL 2 var.

Almiega – SL 2 var.

Almigea – SL 2 var.

Almuga – SL 2 var.

Alumega – SL 2 var.

Aluuega – SL 2 var.

Alvega – SL 2 var.

Alwega – SL 2

Mega – SL 3-B var.

Sega – SL 1 var.

Vega – Cap. 11 Fig.; SL 1-A; SL 3-A; SL 3-B var.

Vege – SL 3-B var.

Vnega – SL 1 var.

Voora – Cap. 11 Fig.

Vuega – Cap. 11 Fig.; SL 1 var.; SL 3-A var.

Vuego – SL 1 var.

We – Cap. 11 Fig.

Wega – Cap. 11 Fig.; SL 1; SL 1-A var.; SL 3-A var.; SL 3-B

Wzega – SL 1-A var.

Bibliography: Kunitzsch, *Sternnamen*: pp. 81, 218; idem, *Typen*, pp. 55 (VIII-35), 28 (III-9) and 43 (VI-32).**α Oph** [17^h 35^m] [+12° 34']α Ophiuchi / Rasalhague (*or* Ras Alhague), a.k.a. Capud Draconis

Arabic: ra’s al-ḥawwā’ / رأس الحواء / “head of the serpent collector/snake charmer [= Ophiuchus]”

Latin: *from the arabic*

Ahaue – Cap. 11 Fig.

Alaue – Cap. 11 Fig.

Alchaue – SL 1 var.

Alchauni – SL 3-B var.

Alha – Cap. 11 Fig.

Alha β – Cap. 11 Fig.
 Alhaimi – SL 3-A var.
 Alhane – Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 3-B var.
 Alhant – SL 1 var.
 Alhanun – SL 3-A var.
 Alharic – SL 1 var.
 Alhau~ – Cap. 11 Fig.
 Alhaue – Cap. 11 Fig.; SL 1; SL 1-A; SL 3-B
 Alhaum – SL 3-A var.; SL 3-B var.
 Alhaun – SL 3-B var.
 Alhauni – SL 3-A; SL 3-B var.
 Alhauue – SL 1-A var.
 Allahinn – SL 3-A var.
 Halhane – SL 3-A var.
 Nazalague – SL 2 var.
 Rasalugue – SL 2 var.
 Rathalague – SL 2 var.
 Razalage – SL 1 var.
 Razalague – SL 2 var.
 Razalee – SL 1 var.
 Razalege – SL 2 var.
 Razalegile – SL 2 var.
 Razalegne – SL 1 var.; SL 2 var.
 Razalegua – SL 1 var.
 Razalague – SL 1 var.; SL 2
 Razaleuge – SL 2 var.
 Razehgue – SL 2 var.
 Razelegue – SL 1 var.
 Razelgeuza – SL 2 var.
 Sagita alh^{au} – SL 3-B var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 81, 196-197; idem, *Typen*, pp. 55 (VIII-33), 28 (III-3) and 43 (VI-30).

δ Oph²⁴ [16^h 14^m] [-03° 42']

δ Ophiuchi / Yed

Arabic: yad / يد / “the hand [of the serpent collector/Ophiuchus]”

Latin: *from the Arabic*

Bed – Cap. 11. Fig.

Ged – Cap. 11 Fig.

Jed – Cap. 11 Fig.

²⁴ δ Oph is a naked eye optical double with ϵ Oph; the former is known as Yed Prior and the latter as Yed Posterior.

Yeb – SL 1-A var.
 Yed – Cap. 11 Fig.; SL 1; SL 1-A
 Yel – Cap. 11 Fig.
 Yes – SL 1 var.
 Yet – SL 1 var.
 Uda – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 80, 219; idem, *Typen*, pp. 55 (VIII-31) and 43 (VI-28).

α Ori [05^h 55^m] [+07° 24']

α Orionis / Betelgeuse

Arabic: yad al-jauzā' / يد الجوزاء / "hand of al-Jauzā' [i.e., Orion]"

Latin: Humerus Geminorum²⁵ / "shoulder of Orion"

Humerus Geminorum – Cap. 11 Fig.

from the Arabic

Algege – Cap. 11 Fig.
 Algeme – SL 3-A var.; SL 3-B var.
 Algemec – SL 3-B var.
 Algeme – SL 3-A var.
 Algen – Cap. 11 Fig.
 Algenie – SL 3-B var.
 Algensasa – Cap. 11 Fig.
 Algenie – SL 3-A
 Algen^{se} – SL 3-B var.
 Algente – Cap. 11 Fig.; SL 1 var.
 Algenza – Cap. 11 Fig.
 Algenze – SL 1 var.; SL 1-A var.
 Algere – Cap. 11 Fig.
 Algeu – Cap. 11 Fig.
 Algeusa – Cap. 11 Fig.
 Algeuse – SL 1 var.
 Algeuze – Cap. 11 Fig.; SL 1; SL 1-A; SL 3-B
 Algome – SL 3-A var.; SL 3-B var.
 Algonine^e – SL 3-B var.
 Bedegenza – SL 2 var.
 Bedegeuze – SL 2 var.
 Bedel – Cap. 11 Fig.
 Bedelgeiza – SL 2 var.
 Bedelgenze – SL 2 var.
 Bedelgeuze – SL 2

²⁵ "Geminorum" here is a translation of "al-jauzā'," the Arabic name for Orion, and for the zodiacal sign of Gemini. [PK]

Bedengelse – SL 2 var.
 Beldegense – SL 2 var.
 Beldegeuze – SL 2 var.
 Beldergenze – SL 2 var.
 Beldezgeuze – SL 2 var.
 Betelgeuze – SL 2 var.
 Elgeuse – SL 1 var.
 Elgeuze – Cap. 11 Fig.; SL 1-A var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 72, 150-151; idem, *Typen*, pp. 55 (VIII-12), 28 (III-20) and 42 (VI-13).

β Ori [05^h 15^m] [-08° 12']

β Orionis / Rigel

Arabic: rijl / رجل / “the foot [of Orion]”

Latin: Pes Geminorum²⁶ / “the foot of Orion”

Pes Geminorum – Cap. 11 Fig.

from the Arabic

Bagel – Cap. 11 Fig.
 Ragal – SL 3-A var.
 Ragel – SL 3-B var.
 Regilal – Cap. 11 Fig.
 Richel – SL 1 var.
 Rigel – Cap. 11 Fig.; SL 1 var.; SL 2 var.; SL 3-A; SL 3-B var.
 Rigial – SL 1 var.
 Rigib – Cap. 11 Fig.
 Rigil – Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-B
 Rigli – Cap. 11 Fig.
 Rygel – SL 1 var.
 Rygyl – SL 2 var.
 Rygyl – SL 1 var.
 R~ algebre – SL 2 var.
 R~ algenze – SL 2 var.
 R~ algoeze – SL 2 var.
 R~ algeute – SL 2 var.
 R~ algeuze – SL 2
 R~ allgeuze – SL 2 var.
 R~ fulgentis – SL 2 var.
 Alhaiot²⁷ – Cap. 11 Fig.

²⁶ “Geminorum” here is a translation of “al-jauzā’,” the Arabic name for Orion, and for the zodiacal sign of Gemini. [PK]

²⁷ Misnamed: Alhaiot (α Aurigae/Capella/Alhaioth) has a declination of about +45°, while the pointer in Mη is about -10°.

Bibliography: Kunitzsch, *Sternnamen*, pp. 70-71, 198; idem, *Typen*, pp. 55 (VIII-11), 28 (III-15) and 41 (VI-11).

β Peg [23^h 04^m] [+28° 05']

Note: at some point this star became duplicated with two different names. While they have more or less the same right ascension, they have quite distinct declinations when plotted on the rete diagrams.²⁸

β Pegasi (1) / Markab

Latin: Humerus equi / “shoulder of the horse”

Equi – Cap. 11 Fig.

Equi humerus – Cap. 11 Fig.

Humerus equi – Cap. 11 Fig.; SL 1-A; SL 3-A; SL 3-B

Humerus equi alati – SL 1 var.

from the Arabic

Menachil – SL 1 var.

Menchel – SL 1 var.

Menthel – SL 1 var.

Mentichel – SL 1

Mentichil – SL 1 var.

Mentichyl – SL 1 var.

Mentithil – SL 1 var.

Bibliography: Kunitzsch, *Typen*, p. 56 (VIII-47) and p. 43 (VI-39); Kunitzsch, *Sternnamen*, pp. 84, 176-177; Paul Kunitzsch, “The Star Catalogue Commonly Appended to the Alfonsine Tables”, *Journal for the History of Astronomy*, 17 (1986), 89-98; rpr. *The Arabs and the Stars* (1989), text XXII; see p. 94.

β Pegasi (2) / Alferaz

Arabic: mankib af-faras / منكب الفرس / “shoulder of the horse”

Latin: Crus Equi²⁹ [shin of the horse]

Crupa Equi – Cap. 11 Fig.

Crpua Et'i – Cap. 11 Fig.

²⁸ At some point in the 15th century, John of Gmunden (or his associates in Vienna) introduced into Europe an erroneous description and naming of the two stars, α Peg and β Peg. The name *sceat* (modern: Scheat), meaning *crus* ([lower] leg, shank) of δ Aqr (i.e., the shank/shin of Aquarius) was erroneously transferred to β Peg, which thus became “Scheat Alferaz id est crus equi”; and α Peg became “Markab Alferaz id est humerus equi” (and these wrongly applied names continued to be used up to today, i.e., Scheat for β Peg and Markab for α Peg). [PK] See Kunitzsch, “Sterntabellen bei Johannes von Gmunden und ihre Nachwirkung,” in *Johannes von Gmunden (ca. 1384-1442), Astronom und Mathematiker*, ed. Rudolf Simek and Kathrin Chlench (Vienna: Fassbaender, 2006), pp. 91-103.

²⁹ See previous note. “Crupa equi” is probably a corruption of “Cru[s] Pe[gasi] equi.” [PK]

from the Arabic

Alf – Cap. 11 Fig.
 Alfam – Cap. 11 Fig.
 Alfam – Cap. 11 Fig.
 Alfan – Cap. 11 Fig.
 Alfas – Cap. 11 Fig.
 Alfat – SL 1 var.
 Alfayaz – SL 2 var.
 Alfaz – Cap. 11 Fig.
 Alfaz~ – SL 1 var.
 Alferach – SL 1 var.
 Alferam – Cap. 11 Fig.; SL 1 var.
 Alferan – SL 1 var.; SL 2 var.
 Alferas – SL 1-A var.
 Alferaz – Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-A var.; SL 3-B
 Alfos? – Cap. 11 Fig.
 Alnicelfans – SL 2 var.
 Alpharaz – SL 2 var.
 Alpheraz – SL 2 var.; SL 3-A
 Elfa' – Cap. 11 Fig.
 Elfa's – Cap. 11 Fig.
 Halferaz – SL 3-A var.
 A~ mentel – SL 2 var.
 A~ 3echel – SL 2 var.
 A~ menkeb – SL 2 var.
 A~ menthel – SL 2 var.
 A~ methel – SL 2 var.

Bibliography: Kunitzsch, *Typen*, p. 56 (VIII-46) and p. 28 (III-6); Kunitzsch, *Sternnamen*, pp. 85-87, 203-204; Kunitzsch, "The Star Catalogue Commonly Appended to the Alfonsine Tables", p. 94.

ε Peg [21^h 44^m] [+09° 53']

ε Pegasi / Enif³⁰

Arabic: anf / انف / "nose [of Pegasus]"

anf al-faras / انف الفرس / "nose of the horse"

Latin: Musida³¹ equi / "muzzle of the horse"

³⁰ See also α Ari.

³¹ From *musis, musum*, "muzzle" (Niermeyer). ε Peg stands in Ptolemy's star catalogue in the *Almagest* on the πύγχορ of Pegasus, i.e., "the muzzle". The Arabic translations render that as *jahfala* ("lip [of a horse]"), which in turn was translated into Latin by Gerard of Cremona as *mus(c)ida*. This is the term that also appears here. *Anf* ("nose") has so far not yet been spotted in an Arabic text; it seems to have been introduced by star table VI-37 and from there spread into other texts (as in star table VIII-43). [PK]

Am equi – SL 1-A var.
 Musid' eq' – Cap. 11 Fig.
 Musida equi – Cap. 11 Fig.; SL 1-A

from the Arabic

Alfeferaz – SL 2 var.
 Cmfelferaz – SL 1 var.
 Emfalferaz – SL 1 var.
 Emfalferam – SL 2 var.
 Emfelferaz – SL 1 var.; SL 2 var.
 Emfelfyn – SL 2 var.
 Emphalferaz – SL 1 var.; SL 2 var.
 Emphalpheloz – SL 2 var.
 Emphelferaz – SL 2 var.
 Emphelperaz – SL 2 var.
 Enfalferaz – SL 1 var.; SL 2 var.
 Enfelfora – SL 1 var.
 Enifalfa – Cap. 11 Fig.
 Enifalfar – SL 1 var.
 Enifalfat – SL 1 var.
 Enifalfaz – Cap. 11 Fig.
 Enifasfaz – SL 1 var.
 Enifelfarin – SL 1 var.
 Enifelfaz – SL 1 var.
 Enifelferaz – SL 1 var.; SL 2
 Enipapheraz – SL 2 var.
 Eniphafeiraz – SL 2 var.
 Eniphalferaz – SL 2 var.
 Eniphelperaz – SL 2 var.
 Eniphelferaz – SL 2 var.
 Eniphelperaz – SL 2 var.
 Epelferam – SL 2 var.
 Semphephezaz – SL 2 var.
 Semphepharaz – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 83, 162-163; idem, *Typen*, pp. 56 (VIII-43), 58 and 43 (VI-37).

α Per [03^h 24^m] [+49° 52']

α Persei / Algenib (also known as Mirfak, “elbow”)

Arabic: al-janb / الجنب / “flank”, “side” [of Perseus]

Latin: frons Algonis³²

³² Origin unknown; perhaps a contraction of “Algenib” or “Algonib”? Presumably it refers to Perseus.

from the Arabic

Alban(?) – Cap. 11 Fig.
 Alg~ – Cap. 11 Fig.
 Algeb – SL 1 var.
 Algebim^{ym} – SL 2 var.
 Algebin – SL 2 var.
 Algebuni – SL 2 var.
 Algebunin – SL 2 var.
 Algebunym – SL 2 var.
 Algebunyn – SL 2 var.
 Algen – SL 3-A var.
 Algeneb – SL 1-A, var.
 Algenib – Cap. 11 Fig.; SL 1; SL 1-A; SL 2
 Algenip – SL 2 var.
 Algenub – Cap. 11 Fig.
 Algerab – SL 1 var.
 Algo~ – Cap. 11 Fig.
 Algon – Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 3-A; SL 3-B
 Algonib – SL 1 var.
 Algonue(?) – Cap. 11 Fig.
 Augenib – SL 1 var.
 Algeuu' – SL 2 var.
 Caput Algon – Cap. 11 Fig.
 Fron [= Frons Algonis?] – Cap. 11 Fig.
 Longo – SL 3-B var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 69, 113-115; idem, *Typen*, pp. 55 (VIII-7: “algenib / frons algonis”) and 42 (VI-8).

β Per [03^h 08^m] [+40° 57']

β Persi / Algol

Arabic: ra's al-ġūl / رأس الغول / “head of the ghoul” [in the hand of Perseus]

Latin: *from the Arabic*

Algol – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 69, 115-116; idem, *Typen*, p. 28 (III-24).

Ϟ Pup [07^h 39^m] [-26° 48']

Ϟ Puppis / Markep

Arabic: markab / مركب / “ship”³³

³³ *Markab* is one of the Arabic names that so far have not been found spelled out in any Arabic text. It belongs to the group of Arabic names that were first used by the author of the Type VI star list who seems to have had access to Arabic material still unknown to us (cf. also ε Peg / Enif / Arabic: *anf*). [PK]

Latin: *from the Arabic*

Marchep – Cap. 11 Fig.; SL 1 var.
 Markab – Cap. 11 Fig.
 Marke~ – Cap. 11 Fig.
 Markeb – Cap. 11 Fig.; SL 1-A
 Markel – SL 1 var.
 Markep – Cap. 11 Fig.; SL 1
 Market – Cap. 11 Fig.
 Merkep – Cap. 11 Fig.
 Mikel – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen* 74, 177-178 idem, *Typen*, pp. 55 (VIII-16) and 42 (VI-17).

α Sco [16^h 29^m] [-26° 26']

α Scorpii/Scorpionis / Antares

Arabic: Qalb al-^caqrab / قلب العقرب / “the heart of the scorpion”

Latin: Cor Scorpii / “the heart of the scorpion”

Cor Leonis³⁴ – Cap. 11 Fig.
 Cor Scorpii – Cap. 11 Fig.; SL 1-A var.
 Cor Scorpionis – Cap. 11 Fig.; SL 1-A

from the Arabic

Cabalacrab – SL 2 var.
 Cabalag^a – SL 3-A var.
 Cabalecrab – SL 2 var.
 Calbalacab – SL 1 var.; SL 3-B
 Calbalac^ali – SL 2 var.
 Calbalac^b – SL 3-B var.
 Calbalacrab – SL 1 var.; SL 2
 Calbalacral – SL 1 var.
 Calbalag[’] – SL 3-B var.
 Calbalag^a – SL 3-A var.
 Calbalag-b – SL 3-B var.
 Calbalagra – SL 3-A; SL 3-B var.
 Calbalagrab – SL 1 var.
 Calbalag^u – SL 3-B var.
 Cabalantab – SL 3-B var.
 Calbalat^ab – SL 3-B var.
 Calbala[’]th – SL 3-B var.
 Calbalatrap – SL 1 var.
 Calbaletrab – SL 2 var.
 Calbalifb – SL 3-B var.

³⁴ An obvious scribal error.

Calbazacrab – SL 2 var.
 Calbolagar – SL 3-A var.
 Calibacrab – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, p. 169; idem, *Typen*, pp. 55 (VIII-32), 28 (III-4) and 43 (VI-29).

β Sco [16^h 05^m] [-19° 48']

β Scorpii/Scorpionis³⁵ / Graffias

Arabic: origin/meaning uncertain; possibly from al-iklīl / الاكليل] “crown”

Latin: *from the Arabic*

Alachil – SL 1
 Alachyl – SL 1 var.
 Aladil – Cap. 11 Fig.
 Alechl – SL 3-B var.
 Alfadil – Cap. 11 Fig.
 Alheba – SL 3-B var.
 Alhelil – SL 3-B var.
 Alielil – SL 3-A; SL 3-B var.
 Alielis – SL 3-A var.; SL 3-B var.
 Halhelil – SL 3-B
 Halhellil – SL 3-B var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 80, 168; idem, *Typen*, pp. 55 (VIII-30).

λ Sco [17^h 34^m] [-37° 06']

λ Scorpii/Scorpionis

Latin: Cauda Scorpionis / “tail of the scorpion”

Cauda Scor[pionis] – Cap. 11 Fig.

Note: Identification probable; see Kunitzsch, *Typen*, pp. 79 (XII-38) and 82; 91 (XIII-30) and 93; 114 (XVII-33) and 115.

α Tau [04^h 36^m] [+16° 31']

α Tauri / Aldebaran

Arabic: ad-dabarān / الدبران / “the follower” [of the Pleiades?]

Latin: Oculus Tauri / “eye of the bull/Taurus”
 also Cor Tauri³⁶ / “heart of the bull/Taurus”

³⁵ Now known to be a multiple-star system.

³⁶ α Tau is on the eye of the bull (according to Ptolemy), which is also how it is designated in the Greek name for the star. “Cor Tauri” is an incorrect development in Arabic astronomy; following the model

Cor Tauri – Cap. 10, ln. 18; Cap. 10, ln. 25; Cap. 10 Fig.; Cap. 11 Fig.

Cor Thauri – Cap. 10 Fig.

Oculus Tauri – Cap. 10, ln. 18 var; Cap. 10, ln. 25 var

from the Arabic

Aabaran – SL 2 var.

Abdebaran – SL 3-B var.

Abdrebran – SL 2 var.

Adebran – SL 3-B var.

Albedaran – SL 2 var.

Aldabaran – Cap. 10 Fig.

Ald'bař – SL 3-B var.

Aldeban – Cap. 11 Fig.

Aldebanar – Cap. 11 Fig.; SL 1-A var.

Aldebans – Cap. 11 Fig.

Aldebar' – SL 2 var.

Aldebaram – SL 1 var.; SL 2 var

Aldebaran – Cap. 10, ln. 18 var; Cap. 10 Fig.; Cap. 11 Fig.; Cap. 22 Fig. var; SL 1;
SL 1-A.; SL 2; SL 3-A; SL 3-B

Aldebarant – SL 3-B var.

Aldebarim – SL 3-B var.

Aldeboran – Cap. 10, ln. 18 var

Aldenaran – SL 3-A var.

Aldevaram – SL 3-A var.

Altebarum – SL 2 var.

Atabanar – Cap. 11 Fig.

Bibliography: Kunitzsch, *Sternnamen*, pp. 70, 109-110; idem, *Typen*, pp. 55 (VIII-9), 28 (III-19) and 41 (VI-10).

α UMa [11^h 04^m] [+61° 45']

α Ursae Maioris / Dubhe

Arabic: ad-dubb / الدب / "[the back of the Greater] Bear"

Latin: *from the Arabic*

Dibhe – Cap. 11 Fig.

Dubhe – Cap. 11 Fig.; SL 1; SL 1-A; SL 2

Dulhe – SL 1 var.

Ednb – SL 1-A var.

of "Cor Scorpis" and "Cor Leonis" (the major stars in those constellations), they also called Aldebaran "Cor Tauri" to reflect its predominance in the constellation. But the constellation Taurus consists of a side view of only of the head and front part of the bull's body, and α Tau is definitely in the head and not in the body where the heart would be. [PK]

For Ptolemy, see Paul Kunitzsch, *Der Sternkatalog des Almagest. Die arabisch-mittelalterliche Tradition*, 3 vols. (Wiesbaden: Harrassowitz, 1986-1991).

Bibliography: Kunitzsch, *Sternnamen*, pp. 77, 158-159; idem, *Typen*, pp. 55 (VIII-23) and 42 (VI-18).

β UMa [11^h 02^m] [+56° 23']

β Ursae Maioris / Merak, Mirak

Latin: Ursa³⁷

Benenar³⁸ – Cap. 11 Fig.

Benenaz³⁹ – Cap. 11 Fig.

Egg(?) – Cap. 11 Fig.

Gel – Cap. 11 Fig.

Ur – Cap. 11 Fig.

Ursa – Cap. 11 Fig.

Veniutab⁴⁰ – Cap. 11 Fig.

η UMa [13^h 48^m] [+49° 19']

η Ursae Maioris / Alkaid, Benetnash

Arabic: qā'id banāt na^cš / قائد بنات نعش / "the leader of the daughters of the bier"

Latin: Ursa maior – Cap. 11 Fig.

from the Arabic

Becnenas – SL 1-A var.

Bemenaz – SL 1 var.

Bene – Cap. 11 Fig.

Bene~ – Cap. 11 Fig.

Beneñ – Cap. 11 Fig.

Benanaz – SL 3-B var.

Benenaz – Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 2 var.; SL 3-A;

SL 3-B var.

Benenah – SL 3-A var.

Benenaiz – SL 3-A var.

Benenas – SL 3-A var.

Benetnaz – SL 1-A var.

Beninenaz – SL 1 var.

³⁷ It is difficult to ascertain which star in Ursa Maior is meant here, since "Ursa" could be any one of a number of stars (and the name is certainly used to label other stars in the astrolabe rete diagrams, e.g., stars in Libra). But given its position in Leo or Virgo, it is most likely that β UMa is meant here.

³⁸ Variant of Benetnasch (η UMa).

³⁹ Variant of Benetnasch (η UMa).

⁴⁰ Variant of Benetnasch (η UMa)? Kunitzsch records "venetuala" as a variant for η UMa (*Typen*, p. 29).

Benmenaz – SL 1 var.
 Bennax – SL 2 var.
 Bennaz – Cap. 11 Fig.
 Benne – Cap. 11 Fig.
 Bennenar – SL 1 var.
 Bennenas – SL 2
 Bennenaz – SL 1; SL 1-A; SL 2 var.; SL 3-B
 Bennenez SL 2 var.
 Bennennas SL 2 var.
 Beynemanz – SL 1 var.
 Bunnanaz – SL 3-B var.
 Denenaz – SL 3-B var.
 Rebene – Cap. 11 Fig.
 Siennemias – SL 2 var.
 Sunmaz – SL 2 var.
 Sunznaz – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 78, 149-150; idem, *Typen*, pp. 55 (VIII-27), 28 (III-10) and 42 (VI-23).

θ UMa [09^h 33^m] [+51° 41']

θ Ursae Maioris

Arabic: ar-rukba / الركبة / “the knee [of the Great Bear]”

Latin: Ursa – SL 1-A var.

from the Arabic

Affachaba – SL 1 var.
 Alrubaba – SL 1 var.
 Alrucaba – SL 1; SL 3-A; SL 3-B
 Alruchaba – SL 1 var.
 Alrucuba – SL 1 var.
 Alrukaba – SL 1 var.; SL 3-B var.
 Alrukalu – SL 1 var.
 Altucaba – SL 1 var.
 Arucaba – SL 3-B var.

Bibliography: Kunitzsch, *Typen*, pp. 55 (VIII-23), 28 (III-26), and 69 (XI-13).

ι UMa⁴¹ [08^h 59^m] [+48° 03']

ι Ursae Maioris / Talitha (Borealis)

Arabic: *possibly* ar-rijl / رجل / “the [hind] foot [of the Great Bear]”

⁴¹ Paul Kunitzsch notes that in 1999 he changed his earlier view that Egregez was μ UMa, and concluded that it was ι UMa instead. See his “Three Dubious Stars,” pp. 66-69.

Latin: *from the Arabic*

Eg^ogez – SL 3-B var.
 Eggregez – SL 3-B var.
 Eggreguz – SL 1 var.
 Egragez – SL 3-B var.
 Egregen[us] – Cap. 11 Fig.
 Egreger – SL 1 var.
 Egreges – SL 1 var.; SL 3-A var.; SL 3-B var.
 Egregez – SL 1; SL 3-A; SL 3-B
 Egregot – SL 3-B var

Bibliography: Kunitzsch, *Typen*, pp. 55 (VIII-17) and 28 (III-27); idem, “Three Dubious Stars,” pp. 66-69.

α Vir [13^h 25^m] [-11° 10']

α Virginis / Azimech, Spica

Arabic: as-simāk al-a^czal / السمك الاعزل / “the unarmed *Simāk*”

Latin: Spica [Virginis] / “[Virgo’s] ear of grain”

Spica⁴² – Cap. 11 Fig.

from the Arabic

Alazel – Cap. 11 Fig.
 Alchim[*illeg.*] – Cap. 11 Fig.
 Alchim^c – Cap. 11 Fig.
 Alchimach – Cap. 10 Fig.
 Alchimec – Cap. 11 Fig.; SL 1-A var.; SL 2 var.; SL 3-B var.
 Alchimech – Cap. 10 Fig.; Cap. 11 Fig.; SL 1 var.; SL 1-A var.; SL 2 var.; SL 3-A var.; SL 3-B
 Alchimedi – SL 2 var.
 Alchimet – Cap. 11 Fig.; SL 1 var.; SL 3-B var.
 Alchimeth – Cap. 11 Fig.; SL 1; SL 1-A; SL 2; SL 3-A var.
 Alchimoch – Cap. 11 Fig.
 Alchiniech – SL 1 var.
 Alchmeet – SL 2 var.
 Alchymech – Cap. 11 Fig.; SL 1 var.; SL 2 var.
 Alchymeth – SL 1 var.
 Alcimehe – SL 3-A var.
 Alcimeth – SL 2 var.
 Alfumec – Cap. 11 Fig.
 Alhimeth – Cap. 11 Fig.
 Alkimech – SL 3-B var.
 Allumeth – Cap. 11 Fig.

⁴² In B ϵ there are two pointers for α Vir, labeled Alchimeth and Spica; the latter appears to be a later addition.

Alramech⁴³ – Cap. 11 Fig.
 Altamech – Cap. 11 Fig.
 Althimec – Cap. 11 Fig.
 Althimech – Cap. 10 Fig.
 Altimeth – Cap. 11 Fig.; SL 3-A
 Alutimech – Cap. 11 Fig.
 Azimech – SL 2 var.
 Azimet – SL 2 var.

Bibliography: Kunitzsch, *Sternnamen*, pp. 78, 146-147; idem, *Typen*, pp. 55 (VIII-26), 28 (III-12) and 42 (VI-25).

UNIDENTIFIED

? In Cancer or Virgo: Algol' – Cap. 11 Fig.
 Algon – Cap. 11 Fig.
 ? In Libra: Denle – Cap. 11 Fig.
 ? In Sagittarius: *illeg.* – Cap. 11 Fig.
 ? In Aquarius: Pegasus – Cap. 11 Fig.
 ? In Aquarius: Alhera – Cap. 11 Fig.
 ? In Aquarius: *illeg.* – Cap. 11 Fig.
 ? In Pices: Sichil – Cap. 11 Fig.
 Slichil – Cap. 11 Fig.

Aldiran/Aldiraan [Leo]

Kunitzsch suggests that this may be a duplication of α Gem or a “ghost star” for α Hyd. Aldiran is also the name used for α Cep (q.v.).

Image: “in the forehead of the lion”

Variants:

Aldira – SL 3-B var.
 Aldiraan – SL 3-A; SL 3-B var.
 Aldiraau – SL 3-A var.
 Aldirain – SL 3-B var.
 Aldiram – SL 1 var.; SL 3-B var.
 Aldiran – SL 1; SL 3-B
 Aldirani – SL 3-B var.
 Alduam – SL 1 var.
 Aldyran – SL 1 var.

Bibliography: Kunitzsch, *Typen*, p. 57 (VIII-24); idem, “Three Dubious Stars,” pp. 63-66.

⁴³ It appears that the names for α Vir/Alchimet and α Boo/Alramech have been reversed in ms M η .

INDEX OF VARIANTS

Arabic based

Aabaran – α Tau	Alchaioc – α Aur	Aldirani – [Unidentified]
Abchair – α Aql	Alchair – α Aql	Aldria – α Cep
Abdebaran – α Tau	Alchaue – α Oph	Alduam – [Unidentified]
Abdrebran – α Tau	Alchauni – α Oph	Aldura – α Cep
Abera – α Cep	Alchim[<i>illeg.</i>] – α Vir	Aldyran – α Cep, [Unidentified]
Abhena – α Cep	Alchim ^c – α Vir	Alechl – β Sco
Abhera – α Cep	Alchimec – α Vir	Aleif – α Cyg
Addig~ – α Cyg	Alchimech – α Vir	Alf – β Peg(2)
Addigega – α Cyg	Alchimedi – α Vir	Alf~ – α CrB, α Hya
Addigege – α Cyg	Alchimeth – α Vir	Alfa' – α CrB
Addigge – α Cyg	Alchimoch – α Vir	Alfaca – α CrB
Addygege – α Cyg	Alchiniech – α Vir	Alfadil – β Sco
Adebran – α Tau	Alchmeet – α Vir	Alfam – β Peg(2)
Adigege – α Cyg	Alchymech – α Vir	Alfan – β Peg(2)
Adiran – α Cep	Alchymeth – α Vir	Alfara – α Hya
Adria – α Cep	Alcimehe – α Vir	Alfarad – α Hya
Afeca – α CrB	Alcimeth – α Vir	Alfarath – α Hya
Affachaba – θ UMa	Alcramech – α Boo	Alfarch – α Hya
Agentenar – τ^2 Eri	Aldabaran – α Tau	Alfard – α Hya
Ahamath – α Boo	Ald'bař – α Tau	Alfart – α Hya
Ahaue – α Oph	Aldeban – α Tau	Alfarat – α Hya
Ahzero – α Cep	Aldebanar – α Tau	Alfaret – α Hya
Al – α Aur, α Boo	Aldebans – α Tau	Alfarta – α Hya
Alabor – α CMA	Aldebar' – α Tau	Alfarth – α Hya
Alachil – β Sco	Aldebaram – α Tau	Alfas – β Peg(2)
Alachyl – β Sco	Aldebaran – α Tau	Alfat – β Peg(2)
Aladil – β Sco	Aldebarant – α Tau	Alfayaz – β Peg(2)
Alaiioth – α Aur	Aldebarim – α Tau	Alfaz – α CrB; β Peg(2)
Alaue – α Oph	Aldeboran – α Tau	Alfaz~ – β Peg(2)
Alazel – α Vir	Aldenaran – α Tau	Alfe – α CrB
Albabor – α CMA	Aldera – α Cep	Alfeca – α CrB
Albaiioth – α Aur	Aldevaram – α Tau	Alfecas – α CrB
Albalezed – α Leo	Aldigege – α Cyg	Alfecha – α CrB
Alban(?) – α Per	Aldigene – α Cyg	Alfeferaz – ϵ Peg
Albedaran – α Tau	Aldira – α Cep, [Unidentified]	Alfeka – α CrB
Albega – α Lyr.	Aldiraan – [Unidentified]	Alfera – α CrB
Alborap corvus – γ Crv(2)	Aldiraau – [Unidentified]	Alferach – β Peg(2)
Alcaioth – α Aur	Aldirab – α Cep	Alferam – α Hya; β Peg(2)
Alcair – α Aql	Aldirain – [Unidentified]	Alferan – β Peg(2)
Alcar – α Aql	Aldiram – [Unidentified]	Alferas – β Peg(2)
Alcayr – α Aql	Aldiran – α Cep, [Unidentified]	Alferat – α Hya
Alchabor – α Cma		

Alferaz – α Hya; β Peg(2)	Algeusa – α Ori	Algurah – γ Crv(2)
Alferit – α Hya	Algeuse – α Ori	Algurali – γ Crv(2)
Alfert – α Hya	Algeute – β Ori	Alh~ – α Aur
Alfeta – α CrB	Algeuu' – α Per	Alha – α Aur, α Oph
Alfetaha – α CrB	Algeuze – α Ori; β Ori	Alha \wp – α Oph
Alfita – α CrB	Alglari – γ Crv(2)	Alhabez – α CMa
Alfrad – α Hya	Alglor – γ Crv(2)	Alhabor – α CMa
Alfrat – α Hya	Algo~ – α Per	Alhaboz – α CMa
Alfos? – β Peg(2)	Algocina – α Cmi	Alhae – α Aur
Alfumech – α Vir	Algociā – α CMi	Alhaimi – α Oph
Alg~ – α Per	Algoesa – α CMi	Alhaioc – α Aur
Algabor – α CMa	Algol – β Per	Alhaioch – α Aur
Algamensa – α Cmi	Algol' – [Unidentified]	Alhaioh – α Aur
Algari – γ Crv(2)	Algom~ – α CMi	Alhaios – α Aur
Algeb – α Per	Algomaza – α CMi	Alhaiot – α Aur, τ^2 Eri, β Ori
Algebim ^{ym} – α Per	Algome – α Ori	Alhaioth – α Aur
Algebin – α Per	Algomeira – α CMi	Alhaioz – α CMa
Algebre – β Ori	Algomeisa – α CMi	Alhaitoth – α Aur
Algebuni – α Per	Algomeiza – α CMi	Alhalach – α Aur
Algebutin – α Per	Algojera – α CMi	Alhalot – α Aur
Algebutyn – α Per	Algojerza B γ – α CMi	Alhane – α Oph
Algege – α Ori	Algomeuza – α Cmi	Alhant – α Oph
Algeme – α Ori	Algomeyra – α CMi	Alhanun – α Oph
Algemec – α Ori	Algomeysa – α CMi	Alharic – α Oph
Algemen – α Ori	Algomeyza – α CMi	Alharoch – α Aur
Algemeza – α CMi	Algomeza – α CMi	Alharoth – α Aur
Algen – α Ori; α Per	Algomezim – α CMi	Alhau~ – α Oph
Algenb – α Per	Algomezun – α CMi	Alhaue – α Oph
Algeneb – α Per	Algomiza – α CMi	Alhaum – α Oph
Algenib – α Per	Algomzi – α CMi	Alhaun – α Oph
Algenie – α Ori	Algon – α Per; [Unidentified]	Alhauni – α Oph
Algenip – α Cet; α Per	Algonib – α Per	Alhaut – α Aur
Algensasa – α Ori	Algonine ^e – α Ori	Alhauue – α Oph
Algente – α Ori	Algoniza – α CMi	Alhaye – α Aur
Algenub – α Per	Algonue(?) – α Per	Alhayeth – α Aur
Algenza – α Ori; β Ori	Algor~ – γ Crv(2)	Alhayot – α Aur
Algenze – α Ori	Algorab – γ Crv(2)	Alhayoth – α Aur
Algeoze – β Ori	Algorab cori – γ Crv(2)	Alheba – β Sco
Algerab – α Per	Algorab corvus – γ Crv(2)	Alhelil – β Sco
Algere – α Ori	Algoraba corvus – γ Crv(2)	Alhera – α Cep
Algetenar – τ^2 Eri	Algorach – γ Crv(2)	Alhimet – α Boo
Algetenor – τ^2 Eri	Algotian – α CMi	Alhimeth – α Vir
Algeteuan – τ^2 Eri	Algoumeiza – α CMi	Alielil – β Sco
Algethenar – τ^2 Eri	Algueda – α Lyr	Alielis – β Sco
Algeu – α Ori	Algumeiza – α Cmi	Alimega – α Lyr
	Algurab – γ Crv(2)	Aliwega – α Lyr

Alkair – α Aql	Alta – α Aql	Auguthanar – τ^2 Eri
Alkaiot – α Aur	Altahir – α Aql	Azerikar – α Cet
Alkimech – α Vir	Altaich – α Aql	Azimech – α Vir
Allahinn – α Oph	Altair – α Aql	Azimet – α Vir
Allgeuze – β Ori	Altaire – α Aql	
Allumeth – α Vir	Altam – α Aql	Bacencaytoz – ζ Cet(1)
Alm – α Boo	Altamech – α Vir	Bachenkaytoz – ζ Cet(1)
Almega – α Lyr	Altani – α Aql	Bagel – β Ori
Almiega – α Lyr	Altar – α Aql	Balzangense – α Gem
Almigea – α Lyr	Altayir – α Aql	Bantheukaitos – ζ Cet(1)
Almuga – α Lyr	Altayr – α Aql	Baratenkaytoz – ζ Cet(1)
Alnicelfans – β Peg(2)	Altebarum – α Tau	Bataikaitos – ζ Cet(1)
Alpharat – α Hya	Althaioth – α Aur	Batecay~ – ζ Cet(1)
Alpharaz – β Peg(2)	Althair – α Aql	Batekaytoz – ζ Cet(1)
Alpharth – α Hya	Altha – α Aql	
Alpheca – α CrB	Althar – α Aql	Batencathos – ζ Cet(1)
Alphefacta – α CrB	Althau – α Aql	Batencaytoz – ζ Cet(1)
Alpheraz – β Peg(2)	Althayr – α Aql	Batenk' – ζ Cet(1)
Alpheta – α CrB	Althimec – α Vir	Batenkaatoz – ζ Cet(1)
Alr – α Boo	Althimech – α Vir	Batenkaitos – ζ Cet(1)
Alř – α Boo	Altimeth – α Vir	Batenkaitoz – ζ Cet(1)
Alra – α Boo	Altucaba – θ UMa	Batenkartoz – ζ Cet(1)
Alra' – α Boo	Alumega – α Lyr	Batenkatoz – ζ Cet(1)
Alram' – α Boo	Aluuega – α Lyr	Batenkautos – ζ Cet(1)
Alramch – α Boo	Alutimech – α Vir	Batenkaytar – ζ Cet(1)
Alramco – α Boo	Alvega – α Lyr	Batenkayton – ζ Cet(1)
Alrame' – α Boo	Alwega – α Lyr	Batenkaytor – ζ Cet(1)
Alramech – α Boo, α Vir	Alyif – α Cyg	Batenkaytoz – ζ Cet(1)
Alrameh – α Boo	Angetenar – τ^2 Eri	Bathebiro – ζ Cet(1)
Alrameht – α Boo	Aramec – α Boo	Bathekaidoz – ζ Cet(1)
Alramek – α Boo	Aramech – α Boo	Bathekardoz – ζ Cet(1)
Alramer – α Boo	Arameth – α Boo	Bathenaytoz – ζ Cet(1)
Alramet – α Boo	Arfart – α Hya	Bathenk' – ζ Cet(1)
Alrameth – α Boo	Arucaba – θ UMa	Bathenkaitoz – ζ Cet(1)
Alramich – α Boo	Astif – α Cyg	Bathenkaythos – ζ Cet(1)
Alranech – α Boo	Atabanar – α Tau	Bathenkaythoz – ζ Cet(1)
Alrb' – α Boo	Augea – τ^2 Eri	Bathenkayto~ – ζ Cet(1)
Alremech – α Boo	Augekanar – τ^2 Eri	Bathenkaytoz – ζ Cet(1)
Alrif – α Cyg	Augekauar – τ^2 Eri	Batsaben – γ Dra
Alrubaba – θ UMa	Augenenar – τ^2 Eri	Bazalgenze – α Gem
Alruchaba – θ UMa	Augenib – α Per	Bazalgeuze – α Gem
Alrucaba – θ UMa	Augerenax – τ^2 Eri	Bazelgeuze – α Gem
Alrucuba – θ UMa	Augetanar – τ^2 Eri	Bazilgeuse – α Gem
Alrukaba – θ UMa	Augetena – τ^2 Eri	Baztaben – γ Dra
Alrukalu – θ UMa	Augetenar – τ^2 Eri	Beastaben – γ Dra
Alsehere – α CMi	Augetonar – τ^2 Eri	Becnenas – η Uma

Bed – δ Oph	Calbalac ^a li – α Sco	Deneba – δ Cap
Bedegenza – α Ori	Calbalac ^b – α Sco	Denebagedi – δ Cap
Bedegeuze – α Ori	Calbalacer – α Leo	Denebakeyzech – β Leo
Bedel – α Ori	Calbalacet – α Leo	Denebalazed – β Leo
Bedelgeiza – α Ori	Calbalacrab – α Sco	Denebaldegi – δ Cap
Bedelgenze – α Ori	Calbalacrall – α Sco	Denebalered – β Leo
Bedelgeuze – α Ori	Calbalag ^r – α Sco	Denebalezed – β Leo
Bedengelse – α Ori	Calbalag ^a – α Sco	Denebalezet – β Leo
Beldegense – α Ori	Calbalag-b – α Sco	Denebalg~ – δ Cap
Beldegeuze – α Ori	Calbalagra – α Sco	Denebalgadi – δ Cap
Beldergenze – α Ori	Calbalagrab – α Sco	Denebalgeda – δ Cap
Beldezgeuze – α Ori	Calbalag ^u – α Sco	Denebalgedi – δ Cap
Bemenaz – η UMa	Cabalantab – α Sco	Denebalgedy – δ Cap
Benanaz – η UMa	Calbalat ^a b – α Sco	Denebalgodi – δ Cap
Benbalezed – β Leo	Calbala ^t h – α Sco	Denebalgydi – δ Cap
Benbalezet – β Leo	Calbalatrap – α Sco	Denebaligedi – δ Cap
Bene – η UMa	Calbalazed – α Leo	Denebalozed – β Leo
Bene~ – η UMa	Calbaletrab – α Sco	Denebazeleth – β Leo
Benebalezed – β Leo	Calbalezath – α Leo	Denebcaithoz – β Cet
Beneñ – η UMa	Calbalezeb – α Leo	Denebcaitoz – β Cet
Benenaiz – η UMa	Calbalezed – α Leo	Denebcaycoz – β Cet
Benenar – β UMa	Calbalezet – α Leo	Denebcaydoz – β Cet
Benenas – η UMa	Calbalezeth – α Leo	Denebcaythos – β Cet
Benenaz – β UMa, η UMa	Calbalifb – α Sco	Denebcaytos – β Cet
Benepcautoz – β Cet	Calbalized – α Leo	Denebcaytoz – β Cet
Benetnaz – η UMa	Calbalzed – α Leo	Denebfaytoz – β Cet
Beninenaz – η UMa	Calbazacrab – α Sco	Denebizaitoz – β Cet
Benmenaz – η UMa	Calbeleleret – α Leo	Denebkaicoz – β Cet
Bennax – η UMa	Calbelezed – α Leo	Denebkaim – β Cet
Bennaz – η UMa	Calbezed – α Leo	Denebkaithos – β Cet
Benne – η UMa	Calbolagar – α Sco	Denebkaithoz – β Cet
Bennenar – η UMa	Calibacrab – α Sco	Denebkaiton – β Cet
Bennenaz – η UMa	Casbeteced – α Leo	Denebkaitos – β Cet
Bennenez – η UMa	Cenok – δ Aqr	Denebkaitoz – β Cet
Bennennaz – η UMa	Cmfelferaz – ϵ Peg	Denebkaitoz – β Cet
Bennennas – η UMa	Colbalerech – α Leo	Denebkantoz – β Cet
Betelgeuze – α Ori		Denebkartoz – β Cet
Beynemanz – η UMa	Daventanet – ζ Cet(1)	Denebkaudos – β Cet
Bunnenaz – η UMa	De – α Cyg	Denebkaudoz – β Cet
	Dea? – α Cyg	Denebkaythoz – β Cet
Cabalacrab – α Sco	Debnecaitoz – β Cet	Denebkaytor – β Cet
Cabalag ^a – α Sco	Den – α Cyg	Denebkaytos – β Cet
Cabalecrab – α Sco	Dena/Deta Alhaiet – α Cyg	Denebkaytoz – β Cet
Cabalezed – α Leo	Denabalezet – β Leo	Denebkidoz – β Cet
Cabeleret – α Leo	Dene – α Cyg	Denebolezed – β Leo
Calbalacab – α Sco	Deneb – α Cyg, β Cet	Deneb[<i>illeg.</i>]zed – β Leo

Denecaitoz – β Cet	Elfera – α CrB	Halhellil – β Sco
Denechtar ^{ezz} – β Cet	Elfeta – α CrB	
Denefbaychos – β Cet	Elgeuse – α Ori	Jed – δ Oph
Denehal – δ Cap	Elgeuze – α Ori	
Denenalgedi – δ Cap	Ellefeca – α CrB	Kalbalezet – α Leo
Denenaz – η UMa	Elpert – α CrB	
Denepaytoz – β Cet	Emfalferaz – ϵ Peg	Libedaneb – δ Cap
Denepcaicoz – β Cet	Emfelferam – ϵ Peg	Libedeneb – δ Cap
Denepcaitoz – β Cet	Emfelferaz – ϵ Peg	Libedenep – δ Cap
Denepkayza – β Cet	Emfelfyn – ϵ Peg	Libedenes – δ Cap
Deneptaye ^{orum} – β Cet	Emphalferaz – ϵ Peg	Libederneb – δ Cap
Deneptaytoz – β Cet	Emphalpheraz – ϵ Peg	Libedydop – δ Cap
Deni – α Cyg	Emphelferaz – ϵ Peg	Liberneneb – δ Cap
Denle – [Unidentified]	Emphelperaz – ϵ Peg	Libideneb – δ Cap
Dens – α Cyg	Enfalferaz – ϵ Peg	Libedeuech – δ Cap
Dera – α Cyg	Enfelferaz – ϵ Peg	Longo – α Per
Deuebalezech – β Leo	Enfelfora – ϵ Peg	Lybedeneb – δ Cap
Deuebalgedi – δ Cap	Enif – α Ari	
Dibhe – α Uma	Enifalfa – ϵ Peg	Malhaiot – α Aur
Donec cartor – β Cet	Enifalfar – ϵ Peg	Marchep – ρ Pup
Donet carthos – β Cet	Enifalfat – ϵ Peg	Markab – ρ Pup
Donet cartoz – β Cet	Enifalfaz – ϵ Peg	Marke~ – ρ Pup
Dubhe – α UMa	Enifasfaz – ϵ Peg	Markeb – ρ Pup
Dulhe – α UMa	Enifelfarin – ϵ Peg	Markel – ρ Pup
	Enifelfaz – ϵ Peg	Markep – ρ Pup
Ednb – α UMa	Enifelferaz – ϵ Peg	Market – ρ Pup
Efa' – α CrB	Enipaphferaz – ϵ Peg	Mega – α Lyr
Effeca – α CrB	Eniphafeiraz – ϵ Peg	Mekar – α Cet
Effecta – α CrB	Eniphalferaz – ϵ Peg	Melzar – α Cet
Effefa – α CrB	Eniphalpheraz – ϵ Peg	Memkar – α Cet
Efeca – α CrB	Eniphelferaz – ϵ Peg	Menachil – β Peg(1)
Eg ^o gez – ι UMa	Enit – α Ari	Menbair – α Cet
Eggregez – ι UMa	Enphelperaz – ϵ Peg	Menc – α Cet
Eggreguz – ι UMa	Enyl – α Ari	Mencar – α Cet
Egragez – ι UMa	Epelferam – ϵ Peg	Menchar – α Cet
Egrogen[us] – ι UMa	Erut – α Ari	Menchel – β Peg(1)
Egreger – ι UMa		Menhar – α Cet
Egreges – ι UMa	Fulgentis – β Ori	Menhkar – α Cet
Egregez – ι UMa	Futekaytoz – ζ Cet(1)	Menk – α Cet
Egregot – ι UMa		Menkar – α Cet
Elfa' – α CrB, β Peg(2)	Ged – δ Oph	Menkarz – α Cet
Elfaca – α CrB		Menkhar – α Cet
Elfa's – β Peg(2)	Halbelil – β Sco	Ment – α Cet
Elfeca – α CrB	Halferaz – β Peg(2)	Menter – α Cet
Elfeka – α CrB	Halhane – α Oph	Menthel – β Peg(1)
Elfeol – α CrB	Halhellil – β Sco	Mentichel – β Peg(1)

Mentichil – β Peg(1)	Pantakaytoz – ζ Cet(2)	Razaben – γ Dra
Mentichyl – β Peg(1)	Pantaketicoz – ζ Cet(2)	Razagenze – α Gem
Mentithil – β Peg(1)	Pantancaitos – ζ Cet(2)	Razageuze – α Gem
Merchm – α Cet	Pantancaitoz – ζ Cet(2)	Razalage – α Oph
Mencach – α Cet	Pantanc[ay]ta – ζ Cet(2)	Razalague – α Oph
Menkath – α Cet	Pantankaytos – ζ Cet(2)	Razalee – α Oph
Menkaz – α Cet	Pantat ^a toz – ζ Cet(2)	Razalege – α Oph
Mentrar – α Cet	Pantaytoz – ζ Cet(2)	Razalegile – α Oph
Merkep – ρ Pup	Pantekai – ζ Cet(2)	Razalegne – α Oph
Mikel – ρ Pup	Pantenkait' – ζ Cet(2)	Razalegua – α Oph
Mirac – β And	Panth' – ζ Cet(2)	Razalegue – α Oph
Mirach – β And	Panthacaythos – ζ Cet(2)	Razaleuge – α Oph
Mirat – β And	Panthacayton – ζ Cet(2)	Razalevze – α Gem
Myrach – β And	Panthacaytos – ζ Cet(2)	Razalgenze – α Gem
Mzcalen – γ Dra	Panthakai – ζ Cet(2)	Razalgeuze – α Gem
	Panthakaitos – ζ Cet(2)	Razaraben – γ Dra
Nasalgenze – α Gem	Panthakaitos – ζ Cet(2)	Razazaben – γ Dra
Nazalague – α Oph	Panthakartos – ζ Cet(2)	Razcaben – γ Dra
	Panthakay – ζ Cet(2)	Razdaben – γ Dra
Ocheath – δ Aqr	Panthakaythos – ζ Cet(2)	Razehgue – α Oph
	Panthakaythos – ζ Cet(2)	Razelegue – α Oph
Paandoz – ζ Cet(2)	Panthakaytor – ζ Cet(2)	Razelgeuza – α Oph
Pacacaitos – ζ Cet(2)	Panthakaytoz – ζ Cet(2)	Raztaben – γ Dra, α Gem
Pacacaitoz – ζ Cet(2)	Pantkaytoz – ζ Cet(2)	Raztabeu – γ Dra
Pacancaitoz – ζ Cet(2)	Patakam – ζ Cet(2)	Raztaten – α Gem
Padaithos – ζ Cet(2)	Patacaitoz – ζ Cet(2)	Razthaben – γ Dra
Pancacayt' – ζ Cet(2)	Patancaitos – ζ Cet(2)	Rebene – η UMa
Pancancantoz – ζ Cet(2)	Patancaitoz – ζ Cet(2)	Regilal – β Ori
Pancatacoz – ζ Cet(2)	Patencacaytoz – ζ Cet(2)	Richel – β Ori
Pancildaicon – ζ Cet(2)	Paucartoz – ζ Cet(2)	Rigel – β Ori
Pantacaidoz – ζ Cet(2)	Pentant'a – ζ Cet(2)	Rigial – β Ori
Pantacaitoz – ζ Cet(2)	Pitaucaitoz – ζ Cet(2)	Rigib – β Ori
Pantacay – ζ Cet(2)	Racalgenze – α Gem	Rigil – β Ori
Pantacayt' – ζ Cet(2)	Rafaligence – α Gem	Rigli – β Ori
Pantacaytos – ζ Cet(2)	Ragal – β Ori	Rozangente – α Gem
Pantacaytoz – ζ Cet(2)	Ragalgeuze – α Gem	Rygel – β Ori
Pantachaitos – ζ Cet(2)	Ragel – β Ori	Rygil – β Ori
Pantachayt~ – ζ Cet(2)	Rahtaben – γ Dra	Rygyl – β Ori
Pantacratoz – ζ Cet(2)	Rartaben – γ Dra	
Pantaikatoz – ζ Cet(2)	Rasalugue – α Oph	Sagita alh ^{au} – α Oph
Pantaitoz – ζ Cet(2)	Ratalgeuze – α Gem	Sc~ – α Cas
Pantakaatoz – ζ Cet(2)	Ratarlem – α Gem	Sceach – δ Aqr
Pantakai – ζ Cet(2)	Rathaben – γ Dra	Scead – δ Aqr
Pantakaitoz – ζ Cet(2)	Rathalegue – α Oph	Sceahc – δ Aqr
Pantakay – ζ Cet(2)	Rathalgeuze – α Gem	Sceath – δ Aqr
Pantakaytor – ζ Cet(2)	Ratzhaben – γ Dra	Sced – α Cas

Scedar – α Cas
 Sceder – α Cas
 Scedry – α Cas
 Scehach – δ Aqr
 Scehah – δ Aqr
 Scenath – δ Aqr
 Scezich – δ Aqr
 Schath – δ Aqr
 Scheat – δ Aqr
 Sechath – δ Aqr
 Seder – α Cas
 Sedes – α Cas
 Sega – α Lyr
 Seheach – δ Aqr
 Semphephazaz – ϵ Peg
 Semphepharaz – ϵ Peg
 Senach – δ Aqr
 Sheach – δ Aqr
 Shenath – δ Aqr

Sichil – [Unidentified]
 Siennemias – η Uma
 Slichil – [Unidentified]
 Steach – δ Aqr
 Sunmaz – η UMa
 Sunznaz – η UMa

 Taben – γ Dra
 Tazageuze – α Gem
 Tenebraitoz – β Cet
 Thaben – γ Dra
 Tova – γ Dra

 Uda – δ Oph

 Vega – α Lyr
 Vege – α Lyr
 Veneb kaitoz – B Cet
 Veniutab – β Uma

Vnega – α Lyr
 Voora – α Lyr
 Vuega – α Lyr
 Vuego – α Lyr
 We – α Lyr
 Wega – α Lyr
 Wzega – α Lyr

Yeb – δ Oph
 Yed – δ Oph
 Yel – δ Oph
 Yes – δ Oph
 Yet – δ Oph

Zenebalgedi – δ Cap
 Zinebalgedi – δ Cap

Latin based

Alacorni – γ Crv(2)
 Ala Corui – γ Crv(2)
 Am equi – ϵ Peg

 Cap[ud Serpentis] – γ Dra
 Capella – α Aur
 Caput Algon – α Per
 Cap[ud] S[erpentis] – γ Dra
 Caud' – β Leo
 Cauda – γ Crv(2), β Leo
 Cauda Capricorni – δ Cap
 Cauda Ceti – β Cet
 Cauda Chitor – B Cet
 Cauda Leonis – γ Crv(1),
 β Leo
 Cauda Scor[pionis] – λ Sco
 Chorus – γ Crv(1)
 Cor Leonis – α Leo, α Sco
 Corona – α CrB
 Cor Scorpii – α Sco
 Cor Scorpionis – α Sco
 Cor Tauri – α Tau

Corus – γ Crv(1)
 Coruus – γ Crv(1)
 Corvus algarab – γ Crv(2)
 Crupa Equi – β Peg(2)
 Crupa Et'i – β Peg(2)

 De – ? Del
 Del – ϵ Del
 Delf/Delf' – ϵ Del
 Delfi' – ϵ Del
 Delfim – ϵ Del
 Delfin – ϵ Del; ? Del
 D[e]lfin – ϵ Del
 Delfinus – ϵ Del
 Delfium – ϵ Del; ? Del
 Delfⁿ – ϵ Del
 Delfyn – ϵ Del
 Delphil – ? Del
 Delphin – ϵ Del; ? Del
 Delphinus – ϵ Del

 Egg(?) – β UMa

Equi – β Peg(1)
 Equi humerus – β Peg(1)

Finis – θ Eri
 Finis Arietis – θ Eri
 Finis fluxus – θ Eri
 Finis fuxus – θ Eri
 Fluxus – θ Eri
 Fron [= Frons Algonis?] –
 α Per

Gel – β UMa

Humerus equi – β Peg(1)
 Humerus equi alati – β Peg(1)
 Humerus Geminorum – α Ori

Leo – α Leo

Moriens Filius – α CMi
 Musid' eq' – ϵ Peg
 Musida equi – ϵ Peg

Oculus Tauri – α Tau

Pegasus – [Unidentified]

Pes Geminorum – β Ori

Prochion – α Cmi

Stella lucida in corona

sept[entri]onali – α CrB

Spica – α Vir

Tauda – β Leo

Ur – β UMa

Ursa – α Aur, β UMa, θ UMa

Ursa maior – η UMa

Venter Chator – ζ Cet(1)

Venter Chitor – ζ Cet(1)

Ventor Caytet – ζ Cet(1)

Vlt^u Volans – α Aql

Vult^r – α Aql

Vultur Cadens – α Lyr

Vultur Volans – α Aql

Appendix II Other Lists of Stars

- Bernkastel-Kues, St. Nikolaus-Hospitals, Bibliothek, ms. 209
ff. 77va: a list containing 13 stars from Star List 2; not collated.
- Eu Erlangen, Friedrich-Alexander-Universität Erlangen-Nürnberg, Universitätsbibliothek, ms. 665
fol. 28r: Kunitzsch, Type IX (*Typen*, p. 59)
- Kβ Karlsruhe, Badische Landesbibliothek, ms. EM 32
fol. 106r: star list which is part of a different astrolabe text
- Lα Leyden, Bibliotheek der Rijksuniversiteit, ms. Scaligerani 64
f. 120r: Kunitzsch, Type XII (*Typen*, p. 77)
- MA Montpellier, Bibliothèque Interuniversitaire, Section Médecine, ms. H 323
fol. 88r: unidentified list of 40 stars, titled “Tabularum secundum modernos”
- Pθ Paris, Bibliothèque nationale de France, ms. lat. 7280
fol. 82v: unidentified star list, dated AD 1364
- Pπ Paris, Bibliothèque nationale de France, ms. lat. 7413(2)
Fol. 36r: unidentified star list, dated AD 1286
- Pυ Paris, Bibliothèque nationale de France, ms. lat. 7421
fol. 203r: Kunitzsch, Type XIII (*Typen*, p. 88)
- Sγ Salamanca, Universidad de Salamanca, Biblioteca, ms. 2621
fol. 10ra: unidentified list of 40 stars, but related to Kunitzsch Type VIII (*Typen*, p. 54)
fol. 10rb: star list of Jean Fusoris (Kunitzsch, *Typen*, p. 5 n 8)
fol. 116v: Kunitzsch, Type IX (*Typen*, p. 59)
- Sε Sankt Gallen, Kantonsbibliothek, Vadiana ms. 412
fol. 95v: star list of Jean Fusoris (Kunitzsch, *Typen*, p. 5 n 8)
- Wε Wien, Österreichische Nationalbibliothek, ms. Palatinus 5412
fol. 59v: star list of John of London, i.e., Kunitzsch Type VI (*Typen*, p. 40)
- Wκ Wolfenbüttel, Herzog August Bibliothek, Cod. Guelf. 81.26 Aug. 2^o,
fol. 139ra: unidentified list of 41 stars, but related to Kunitzsch Type VIII (*Typen*, p. 54)
fol. 139rb: star list of Jean Fusoris (Kunitzsch, *Typen*, p. 5 n 8)