

ASTRONOMY

By DIETRICK E. THOMSEN

The ancient Greeks memorialized their heroes, actual and mythical, by putting them into the sky, naming constellations and stars after them. The Arabs and the astronomers of the early modern period continued the practice. The 17th century Polish king Jan Sobieski (1629-1696), who saved Western Europe from a Turkish invasion, has a constellation, Scutum Sobieskii. Several companies are now offering for a modest fee to put your Uncle Max or Aunt Sally similarly in the sky, by naming stars after them. However, astronomers say the procedure is meaningless to them.

Linda Sugar, a spokeswoman for International Star Registry (ISR) of Toronto, says that for \$35 a customer can give a name of his or her choosing to a star chosen by ISR. If they have a particular choice of constellation, Sugar says, ISR tries to accommodate. The customer gets a certificate and charts showing the location of his or her star. Furthermore ISR maintains a vault in Switzerland where these designations are kept on file, and copies are sent to the U.S. Copyright Office. Returns from the 1983 Christmas season are not fully tabulated, but Sugar says that since ISR started in 1979, they have sold about 100,000 names.

According to Sugar, ISR does this on its own authority. They studied the matter, she says, and found there was nothing to prevent them from doing it. Astronomers, she says, have over 30 ways of designating stars and have to tell each other which one they happen to be using.

Anybody can name anything. The question is: Who accepts the nomenclature? Astronomers regard the International Astronomical Union (IAU) as the official arbiter of celestial nomenclature. The IAU is a bit miffed that this star naming business has arisen. Some time ago it asked national astronomical societies to inform the public that these designations had no official standing as far as it was concerned. Andrew Fraknoi, executive secretary of the Astronomical Society of the Pacific (headquartered in San Francisco) issued such a statement on behalf of the ASP, which unites professional astronomers, amateur astronomers and others interested in astronomy. As a result, he says, he got complaining telephone calls from ISR and from another such organization, Star Registration System, located in Texas. Fraknoi says he has also had calls from people who bought such designations and then were chagrined to realize that astronomers didn't accept them.

Astronomers stopped naming stars centuries ago. Although they still use the

Astronomers, who stopped naming stars long ago, are annoyed that others have begun to

Characteristics of Some Naked-Eye Stars

Star	Common Name	Origin*	Meaning	Size (Sun = 1)	F ^o Temp.	Color
α Canis Majoris	Sirius	G	Scorching	3	19,800	bluish
α Carinae	Canopus	G	Legendary Helmsman	60	13,680	yellow-white
α Centauri	Rigelkent	A	Foot Of The Centaur	1	10,800	yellow-orange
α Lyrae	Vega	A	Swooping Eagle	3	19,800	bluish-white
α Aurigae	Capella	L	Shegoat	1	10,800	yellow
α Bootis	Arcturus	G	Bear Guard	16	9,180	orange-yellow
β Orionis	Rigel	A	Foot	40	45,000	bluish-white
α Canis Minoris	Procyon	G	Before The Dog	1	13,680	yellow-white
α Eridani	Achernar	A	End Of River	6	45,000	bluish
β Centauri	Hadar	A	Settled Land	16	45,000	bluish
α Aquilae	Altair	A	Flying Eagle	2	19,800	yellow-white
α Orionis	Betelgeuse	A	Armpit Of Orion	800	6,480	reddish
α Tauri	Aldebaran	A	Chief Of The Followers	25	9,180	orange
α Virginis	Spica	L	Ear Of Wheat	6	45,000	bluish
β Geminorum	Pollux	L	Horseman	16	9,180	yellow
α Scorpii	Antares	G	Rival Of Mars	500	6,480	reddish
α Piscis Austrini	Fomalhaut	A	Mouth Of The Fish	2	19,800	white
α Cygni	Deneb	A	Tail Of The Chicken	40	19,800	white
α Leonis	Regulus	L	Little King	4	45,000	bluish-white
ι Geminorum	Castor	L	Boxer	2	19,800	greenish-white
ε Canis Majoris	Ad Hara	A	Virgin	10	45,000	bluish
γ Orionis	Bellatrix	A	Female Warrior	10	45,000	bluish
λ Scorpii	Shaula	A	The Sting	6	45,000	bluish
σ Ceti	Mira	A	Wonderful Star	100	6,480	red
ε Orionis	Anilam	A	String Of Pearls	20	45,000	bluish
β Tauri	El Nath	A	The Butting One	6	45,000	bluish-white
α Persei	Mirafak	A	The Elbow	80	13,680	yellow-white
η Ursae Majoris	Alkaid	A	Chief Of The Mourners	4	45,000	bluish
γ Geminorum	Alhena	A	Feet Of The Twins	2	19,800	white
ε Sagittarii	Kaus Australis	A	Southern Part Of The Bow	2	19,800	white
α Ursae Majoris	Dubhe	A	The Bear	16	9,180	orange
δ Canis Majoris	Al Wazor	A	Weight	100	13,680	yellowish
β Canis Majoris	Murzim	A	The Announcer	12	45,000	bluish
ζ Orionis	Alnitak	A	The Girdle	20	45,000	bluish-white
β Aurigae	Menkainan	A	Shoulder Of The Rein Holder	2	19,800	white
α Ursae Minoris	Polaris	A	The Pole Star	100	13,680	yellowish
α Ophiuchi	Rasalhague	A	Head Of The Serpent Charmer	5	19,800	white
σ Sagittarii	Nunki	A	Proclamation Of The Sea	6	45,000	bluish
α Andromedae	Alpheratz	A	Horse's Navel	6	19,800	white
ζ Ursae Majoris	Mizar	A	Waist Cloth	2	19,800	green-white
α Hydrae	Alphard	A	Solitary One	6	9,180	orange
α Gruis	Al Na'ir	A	Bright One	4	45,000	bluish
χ Orionis	Saiph	A	The Sword	20	45,000	bluish
λ Velorum	Suhail	A	Of The Weight	400	9,180	orange

A = Arabic, G = Greek, L = Latin

traditional names of the most famous stars, astronomers feel that for less prominent ones a name is useless for locating the star. They prefer to rely on catalog numbers, which often include coordinates by which they can find the star. Sugar is correct that astronomers have a large number of catalogs, for special and general purposes, and that this multiplicity can cause confusion.

The other way of designating stars is by the constellations in which they are located. Constellations are no longer pictures. They are regions of the sky with particular boundaries, and every part of the sky is in some constellation. Every star within the given boundaries is part of the constellation. Stars are designated in order of brightness by Greek and Latin letters, starting with alpha for the brightest, running to omega, then A to Z, then AA to ZZ. Thus Sirius is alpha Canis Majoris; Betelgeuse is alpha Orionis, Rigel is beta Orionis. The constellation name is put in the genitive case. Astronomers are no longer as automatically familiar with Latin grammar as they used to be, so they now

tend to take refuge in abbreviations, such as Cyg (Cygni) or Aur (Aurigae). Incidentally some traditional star names are not so ennobling: Rigel means foot; and Capella means nanny goat.

Galaxies, quasars, radio sources, X-ray sources and gamma ray sources are all referred to by constellation or by catalog designations that usually include their coordinates. Particular names are rare exceptions. Where particular names are still applied is in the solar system to newly discovered comets, asteroids, satellites and topographical features of the moon and the terrestrial planets. Usually the discoverer suggests a name, and the suggestion is made official by appropriate action of the IAU. No payments are involved.

Personal names can appear here. Comets are named for their discoverers. The astronomer Fred Whipple named an asteroid for his mother, Celeste. Years later another was named for him. So the official IAU way to get Uncle Max memorialized in the sky is to discover an asteroid and then convince the IAU that Uncle Max deserves the honor. □

Grayzeck/Parker, Star Gazers Guide, UNLV (through a Faculty Development Grant from the Board of Regents).