Create a Hawaiian Star Compass

Print the following star compasses and paste on paper plates. Read the material below.
Locate significant items in the night sky.

The information below is believed to be correct, but is subject to change:

Polynesian Voyaging Society
Pier 7, 191 Ala Moana Blvd.
Honolulu, HI 96813

http://www.pvs.hawaii.org/index.htm
(808) 536-8405
(808) 536-1519 (fax)
**The upright Southern Cross (raanakaimakana) points south.**
To help him orient the canoe to the rising and setting points of stars, the wayfinder uses a **star compass** with thirty-two equidistant directional points around the horizon, each point 11.25 degrees from the next point (11.25 degrees x 32 points = 360 degrees). Each point is the midpoint of a house of the same name, and each house is 11.25 degrees wide (11.25 degrees x 32 houses = 360 degrees).

The four cardinal directions have traditional Hawaiian names:

East is called Hikina ("Arriving" or "Coming"), where the sun and stars "arrive" at the horizon;

West is called Komohana ("Entering"), where the sun and stars "enter" into the horizon;

North is called 'Akau;
South is called Hema.

The four cardinal directional points divide the circle of the horizon into four quadrants, which have been given names associated with wind directions:

Ko'olau is the NE quadrant, named for the windward side of the islands, the direction from which the NE trades, the most constant of the Hawaiian winds, blow.

Malanai is the SE quadrant, named for "a gentle breeze" (PE) associated with Kailua O'ahu (SE part of the island) and Koloa, Kaua'i (S by E part of the island); on a wind map of Pukapuka, two "Malangai" winds blow from the SE.

Kona is the SW quadrant, named for the leeward side of the islands, away from the NE trades; winds blowing from the south or SW are called kona.

Ho'olua is the NW quadrant, named for a strong north wind, generated by storm systems passing north of the islands. (The Pukui-Elbert dictionary gives Kiu as the name of a northwesterly wind.)

Each quadrant contains seven directional points and houses with the following names. The names were devised by Nainoa Thompson, the first Hawaiian in over 500 years to practice long-distance, open-ocean navigation without instruments:

La: "Sun"; the sun stays in this house for most of the year as it moves back and forth between its southern limit at the Tropic of Capricorn (23.5 degrees S) at Winter Solstice to its northern limit at the Tropic of Cancer (23.5 degrees N) at Summer Solstice.

'Aina: "Land"; This house between 17 degrees and 28 degrees on the horizon from east and west can be remembered because Hawai'i ('Aina, or Land) is at 21 degrees N latitude and Tahiti ('Aina, or Land) is at 18 degrees S latitude.

Noio: named for the Hawaiian tern, which helps a navigator find islands because it flies out to sea in the morning to fish (range about 40 miles) and returns to land at night to rest.

Manu: "Bird"; the four houses of Manu, midway between the four cardinal directions, can be seen as the points of the beak, tail, and outstretched wing-tips of a bird; the bird is the traditional Polynesian metaphor for the canoe. On early voyages to Tahiti, the Hokule'a sailed in the direction of Manu Malanai, with
its wings and Manu Ko'olau and Manu Kona, and its tail pointed back at Manu Ho'olua.

Nalani: Named for the brightest star in this house, Ke ali'i o kona i ka lewa (Canopus), which rises in Nalani Malanai and sets in Nalani Kona.

Na Leo: "The Voices," referring to the voices of the stars speaking to the wayfinder.

Haka: "Empty"; named for the relatively empty skies around the north and south celestial poles; Kamakau say the names of these areas are Uliuli ("deep, dark blue") and Lipo ("deep, dark night").

(Information about the name of these houses is from Will Kyselka's Ocean in Mind 96-97).

Seven directional houses in each of the four quadrants combine to give 28 compass directions between the four cardinal points:

La Ko'olau = E by N
'Aina Ko'olau = ENE
Noio Ko'olau = NE by E
Manu Ko'olau = NE
Nalani Ko'olau = NE by N
Na Leo Ko'olau = NNE
Haka Ko'olau = N by E

La Ho'olua = W by N
'Aina Ho'olua = WNW
Noio Ho'olua = NW by W
Manu Ho'olua = NW
Nalani Ho'olua = NW by N
Na Leo Ho'olua = NNW
Haka Ho'olua = N by W

La Malanai = E by S
'Aina Malanai = ESE
Noio Malanai = SE by E
Manu Malanai = SE
Nalani Malanai = SE by S
Na Leo Malanai = SSE
Haka Malanai = S by E
La Kona = W by S
'Aina Kona = WSW
Noio Kona = SW by W
Manu Kona = SW
Nalani Kona = SW by S
Na Leo Kona = SSW
Haka Kona = S by W

A star that rises in a house on the NE horizon travels across the sky, and sets in a house of the same name on the NW horizon; A star that rises in a house on the SE horizon travels across the sky, and sets in a house of the same name on the SW horizon. Thus, the rising and setting points of stars are clues to direction. Recognizing a star as it rises or sets and knowing the house it rises or sets in gives you a directional point by which you can orient the canoe and head in the direction you want to go. Ocean swells, also used to hold a course, travel from one house on the horizon to a house directly opposite on the horizon (180 degrees away), passing under the canoe, which is always at the center of the compass.

**Star Groups and Hawaiian Names for Stars**

The wayfinder must memorize the position of as many stars as possible on the celestial sphere. On cloudy nights, when only parts of the sky are visible, he must be able to recognize isolated stars or star groups and to imagine the rest of the celestial sphere around them. To help remember the pattern of stars in the sky, Nainoa Thompson has organized the sky into three star lines, which appear one after another in the sky.

The three groups have been given the names Ke Ka o Makali'i ("The Canoe-Bailer of Makali'i"), Ka Iwikuamo'o ("The Backbone"), and Manaiaikalani ("The Chief's Fishline"). Each group takes up about one fourth of the celestial sphere; a fourth group of stars, as yet unnamed, includes 'Iwa Keli'i (the constellation Cassiopeia) and the Great Square of Pegasus. (Some of the following star names are traditional; others are new; the Polynesian Voyaging Society is in the process of naming in Hawaiian all the major stars, constellations, and quadrants of the celestial sphere.)

One way to remember the sequence of the four quadrants of the sky is to use the mnemonic patterns:
A bowl (the bailer, a half circle of stars); followed by a line (Iwikuamo'o is sometimes called the "North-South Star Line"); followed by a triangle (Manaiakalani contains the three bright stars of the Navigator's Triangle); followed by a square (the fourth quarter of the sky includes the Great Square of Pegasus);

Or a bailer (Ke Ka); followed by a backbone (Iwikuamo'o); followed by a fishhook (Manaiakalani is the name of Maui's fishhook); followed by a seabird ('Iwa)

**KE KA O MAKALI'I** ("The Canoe-Bailer of Makali'i"). Click here for a chart of the declinations and houses of the stars in and around Ke Ka o Makali'i.

Ke Ka o Makali'i is formed by five stars curving across the sky from 'akau (north) to hema (south) in the shape of a bailer, with the bottom toward hikina (east) and the rim toward komohana (west). During Ho'oilo (the winter season from November to April), these stars are visible for most of the night in the Hawaiian sky; during Kau (the summer season from May to October), these stars are in the sky overhead mostly during the daylight hours. The five stars of Ke Ka o Makali'i are the following:

Hoku-lei ("Star-Wreath"ÑMakemson): This sun-yellow star is at the 'akau point of Ke Ka o Makali'i. According to Makemson, Hoku-lei is also the name for a circle of five stars forming a star-lei, the star Hoku-lei being the brightest star in the lei. The haole name for Hoku-lei is Capella (Alpha Aurigae); the name of the constellation formed by the circle of five stars is Auriga ("Charioteer"). According to Johnson and Mahelona, Hoku-lei is an "unidentified star. Lit., 'star-suspended over land'" (5).

Na Mahoe ("The Twins") is a pair of stars. The first of the pair to appear in the Hawaiian sky, a whitish green star, is called Nana-mua ("Look forward"DPukui-Elbert); the sun yellow star that follows is called Nana-hope ("Look behind"DPukui-Elbert). Johnson-Mahelona and Makemson give the name as "Nana," equivalent to "Ana," or star, so "Nana-mua" means "First star" and "Nana-hope" means "Last star." The pair of stars is also called Nana-mua-ma ("Nana-mua and associate"). Other Hawaiian names: Mahau ("Twins"ÑM), [Ka-Mahana ("Twins"), Na Hoku-Mahana, and Na-lalani-a-Pili-lua ("The lines of the clinging ones"ÑJ & M). The haole name for this pair is Gemini ("The Twins"); Nana-mua is called Castor (Alpha Geminorum) and Nana-hope is called Pollux (Beta Geminorum).
Puana ("Blossom"); a new Hawaiian name based on a Maori name): This light yellow star has no recorded Hawaiian name; in Maori it is called Puanga-hori ("False Puanga") to distinguish it from its pair Puanga or Puanga-rua ("Blossom-cluster"), or Rigel. The haole name for Puana is Procyon (Alpha Canis Minoris).

'A'a ("Burning brightly"): This blue-white star, the brightest in the sky, is at the hema point of Ke Ka o Makali'i. Johnson and Mahelona suggest 'A'a is also a name for the seabird known as the booby (52), which is used to locate islands; these birds leave their nesting island in the morning to hunt for fish at sea, and return to the island in the evening (range: 30-50 miles—Lewis 171). Other names for this star: Hiki-kau-[e]-lia; Hiki-kau-e-lono (cf. A-iki-kau-e-lono, "The-small-booby-bird-of-Lono"ÑJ & M); Hiki-kau-lono-meha ("Star of solitary Lono"; also Lono or Lono-meha); [Hiki] kaulana-o-meha; Kau-anomeha ("Standing alone and sacred"ÑM); Hoku-kau'opae ("Star for placing shrimp"ÑJ & M; cf. Kau-opae: "name for Sirius as patron of shrimp fishing"ÑM); [Hoku-ho'okele-wa'a" ("Canoe-guiding star"ÑJ & M); Kaulu-lena, Kaulua-lena ("Yellow star"), or Lena; Kaulua[-i-ha'i-mohai] or [-a-ha'i-mohai] ("Flower of the heavens"ÑM). Makemson says Kaulua means "Bright star"; Kaulua is also the name of a month: February on Hawai'i, June on Moloka'i, and December on O'ahu. The haole name for this star is Sirius (Alpha Canis Majoris).

Stars in and around Ke Ka o Makali'i

Makali'i ("Little eyes" or "Little stars"): This cluster of seven little stars rises ahead of the stars of Ke Ka o Makali'i. According to Makemson, "Maka-li'i" may be interpreted as "High-born stars" ("Maka-li'i"); Beckwith (367) suggests "Eyes of the chief," Makali'i being the ho'okele (navigator-steersman) for the famous voyager Hawaii-loa. Makali'i was the "guiding star [cluster] for the first month of the year (November-December); also marked the beginning of the year when it rose at sunset. A thousand years ago, the rising of this group of stars in the east would have occurred a month earlier (October-November)." Makali'i was the name of a month (December on Hawai'i, April on Moloka'i, October on O'ahu-Malo 33). Other names for Makali'i: Hu[i]hui ("Group"); Kupuku ("Cluster"). Beckwith says that Makali'i was actually Hoku'ula (Aldebaran), and the cluster of seven stars called Makali'i had the following names: Na-Huihui-o-Makali'i ("The Cluster of Makali'i"), Huihui-koko-a-Makali'i-kau-i-luna ("Makali'i's rainbow colored nets hung above"), Na Wahine-o-Makali'i ("The wife of Makali'i"), Na-ka-o-Makali'i ("The bailers of Makali'i"), Na-koko-a-Makali'i ("The nets of Makali'i"). According to Makemson, Makali'i is the bow of the Maori canoe Tainui, with the Cross as
the anchor,"the Belt of Orion as stern, the Sword as cable, and the Hyades [the face of Taurus] as sail [Te Ra-o-Tainui]" (249). The cluster of seven stars is called the Pleiades in the west.

Hoku'ula ("Red star") or Kapu-ahi ("Sacred fire"): This giant red star appears after Makali'i and Hoku-lei in the Hawaiian sky. Other Hawaiian names include 'Au-kele-nui-a-iku (a legendary hero, "the seeker of the water-of-life, grandson of the mo'o Mo'oinanea, who gave him three magic objects with which to achieve his goals on a long sea journey of forty days"-Johnson and Mahelona, ix; see Fornander, Vol. 4, 32-111, for a version of the legend of 'Au-kele-nui-a-iku); Kao-ma'aiiku; Kao. The haole name for this star is Aldebaran (Alpha Tauri).

Ka Hei-hei o na Keiki ("The Cat's Cradle of the Children"; a new Hawaiian name): This constellation with two bright star pairs separated by a row of three stars appears in front of Ke Ka o Makali'i. The name was given because the star group resembles a pattern created in the traditional Hawaiian string game called Hei or Hei-hei. In the West, the two pairs are seen as the points of the shoulders and knees of Orion; the row of three stars is seen as Orion's belt.

Kao-Makali'i, Na Kao ("The Darts of Makali'i"): The three stars in the middle of Ka Hei-hei o na Keiki. In Tonga, the three stars are seen as three canoe paddlers (Kyselka 48). In Kiribati (Gilbert Islands) the three are seen as three fishermen. The haole names for the three stars are Mintaka (Delta Orionis), Alnilam (Epsilon Orionis), and Alnitak (Zeta Orionis).

Kaulua-koko ("Brilliant red star"-Makemson; "koko" means "blood; rainbow-huedi-Pukui Elbert): This red star is the northeast corner of Ka Hei-hei o na Keiki. Other Hawaiian names for this star: Ka'elo (the name of a month: January on Hawai'i, May on Moloka'i, November on O'ahu, and June on Kaua'i-Malo); 'Aua; Hoku-'ula ("Red star"); Koko; Melemele (Name of an ancestral homeland in the north?-J & M). The haole name for this star is Betelgeuse (Alpha Orionis).

Pu'uhonua (westernmost point, the City of Refuge at Honaunau on the Big Island): This star is the southwest corner of Ka Hei-hei o na Keiki. The name is a pun on the Arabic name for the star, "Saiph" ("safe"). The Greek name is Kappa Orionis.

Puana-kau ("Suspended Blossom"-Makemson): This blue-white star, "suspended" above Ke Ka o Makali'i, is the southeast corner of Ka Hei-hei o na Keiki. The haole name for this star is Rigel (Beta Orionis).
Ke ali'i o kona i ka lewa ("The chief of the southern heavens"-Johnson and Mahelona): This bright blue-white star, the second brightest in the sky, appears south of 'A'a. The house of Nalani on the Star Compass was named for it. Its haole name is Canopus (Alpha Carinae).

**KA IWIKUAMO'O ("The Backbone")** Click here for a chart of the declinations and houses of the stars in and around Ka Iwikuamo'o.

This star line runs from Hoku-pa'a at the north celestial pole to Hanai-a-ka-malama near the south celestial pole. The stars may be seen as vertebrae along a backbone; Iwikuamo'o (lit. "Bone back-lizard") is also a metaphor for a genealogical line, with each vertebra representing a generation. This star line follows Ke Ka o Makali'i into the sky.

Hoku-pa'a ("Fixed star"): This circumpolar star, which does not rise or set in the Hawaiian sky, appears "fixed" at the north celestial pole with other stars circling around it. Actually it is inscribing a circle 1.8 degrees wide around the pole, and because of precession, the wobbling of earth on its axis, Hoku-pa'a is not actually "fixed" permanently. A circle of precession is completed in 26,000 years, and in 13,000 years the north pole will be pointing to the opposite side of the circle of precession, between Hawaiki (Deneb) and Rapanui (Vega) and Hoku-pa'a will appear to be circling the north celestial pole (Kyselka and Lanterman 24-8). Still, in our era, the names for this star suggest its stationary appearance: Noho-loa ("Eternal"), Kumau ("Standing Perpendicularly"), Kio-pa'a/Kio-pa ("Fixed projection"), Kia-pa'akai (Biblical: "Pillar of salt"), Makaholo-wa'a ("Sailing-canoe eye"-J & M, or "Star of the sailing canoe"-M). The haole name for this star is Polaris (Alpha Ursae Minoris).

Holopuni ("To circle"; "To sail or travel around"; a new Hawaiian name for this star); also, Hoku-Mau (a new Hawaiian name, in honor of Mau Piailug, the Satawalese navigator who taught non-instrument navigation to Nainoa Thompson; in Hawaiian, "mau" means "constant," "perpetual," "always"). This star appears to circle perpetually around Hoku-pa'a. The haole name for this star is Kochab (Beta Ursae Minoris).

Na Hiku ("The Seven"): This constellation of seven stars arcs around Hoku-pa'a farther out than Holopuni. "Donaghho gives the full name as Na Hiku-ka-Huihui-a-Makalii, the Cluster-of-the-Seven-of-Makalii. The stars of Na Hiku are individually designated by numbers: Hiku-kahi [Dubhe], Hiku-[a]hua [Merak], Hiku-kolu [Phad], Hiku-[a]ha [Megrez], Hiku-lima [Alioth], Hiku-ono [Mizar], and Hiku-pau, 'Finished' [Alkaid] (Beckwith, The Kumulipo: A
Hawaiian Creation Chant 208). Hiku-kahi and Hiku-[ˈa]lua point toward Hoku-paia. The haole name for this constellation of seven stars is the Big Dipper.

Hoku-le'a ("Clear Star"): This orange red star, the brightest in the northern hemisphere, appears south of Na Hiku. "A celestial beacon marking the northern destination in the long voyages from the Marquesas and Tahiti to Hawai'i as the zenith star" (Johnson and Mahelona 5). Makemson translates Hoku-le'a as "Star of gladness." The haole name for this star is Arcturus (Alpha Bootis).

Hiki-analia ("Hiki" could mean star; "analia" means ?): This blue-white, medium bright star appears at about the same time as, but to the south of Hoku-le'a. Hiki-analia was "Used as a guide to mariner and fisherman; computed as Spica [Alpha Virginis]" (Johnson and Mahelona 3). Hiki-au-moana is the Kaua'i name for Hiki-analia (Johnson and Mahelona).

Me'e ("Voice of Joy"-Makemson): Four stars which rise before and to the south of Hikianalia. Me'e is the name of this constellation in the Marquesas, according to Johnson and Mahelona. No recorded Hawaiian name. "Mee is the Marquesan form of the widespread Polynesian star name Mere, Meremere, or Melemele, signifying 'Voice of joy'"-Makemson 235). The Hawaiian form of Me'e, "Mele," means "song" or "chant" or "to sing" or "to chant." "Me'e" in Hawaiian means "hero or herione" or "heroic," "admired," or "prominent." Johnson and Mahelona identify Melemele or Mere as a name for Orion's belt and a homeland in the north (17). Serpwen and Sarapori are Micronesian names for this constellation. In Pukapuka, it is called Te Manu ("The Bird"-M). The haole name for this constellation is Corvus ("Crow").

Hanai-a-ka-malama ("Cared for by the moon"-Johnson and Mahelona): This group of four stars appears near the southern horizon; it forms a cross with the top and bottom stars pointing toward the south celestial pole. Other Hawaiian names: Newa ("War club"-Pukui-Elbert), Newe, or Newenewe (Guide star to Tahiti-J & M); Ka-pe'a ("The Cross" or "Bat"); Makeupe'a or Mekeupe'a (possibly names for the Cross-J & M); Pu-koloa ("Wild duck overhead," possibly the Cross because of a similarity to Tongan and Samoan "Toloa," for the Cross-Makemson); Hoku-kea [-o-ka-mole honua] ("Star-cross-of-the-barren-lands"-M). The haole name for this constellation is the Southern Cross or Crux.

Kaulia ("Suspended" or "Hanging"): This cool red giant is at the top of the cross of Hanai-a-ka-malama. Kaulia has been described traditionally as a prominent star in the Southern Cross; "called the chief of the month of Ikiiki
[May] because it appears in that month" (Johnson and Mahelona). The haole name for this star Gacrux (Gamma Crucis).

(Ka) Mole Honua ("The barren lands"-Makemson; a new Hawaiian name for this star based on a possible name for Hanai-a-ka-malama, Hoku-kea [-o-ka-mole honua]-"Star-cross-of-the-barren-lands"-Makemson): This bright blue star is at the bottom of the cross of Hanai-a-ka-malama. Pukui-Elbert define mole as "tap root," "bottom," "ancestral root," "foundation," "source," "smooth" or "bald" [Makemson's "barren"]; "to linger," "to loiter." "Honua" means "land" or "earth." Mole Honua may be seen as the ancestral root or foundation of Ka Iwikuamo'o, which metaphorically refers to a genealogical line. The haole name for this star is Acrux (Alpha Crucis).

Na Kuhikuhi ("The Pointers"; translation of the haole name for a pair of stars which points to Hanai-a-ka-malama): These two star follow Hanai-a-ka-malama into the southern sky and point to it. The first of the pair of stars is called Ka-maile-mua ("The first maile"-Johnson and Mahelona); the haole name of this star is Hadar (Beta Centauri). The second star of the pair is called Ka-maile-hope ("The last maile"-Johnson and Mahelona); the haole name is Rigel Kentaurus (Alpha Centauri). In Kapingamarangi, Ka-maile-mua and Ka-maile-hope are also a pair: Ti-humu-uri and Ti-humu-te (Johnson and Mahelona 129).

MANAIKAHALANI ("The Chief's Fishline") Click here for a chart of the declinations and houses of the stars in and around Manaiakalani.

Manaiakalani ("The Chief's Fishline"-Johnson and Mahelona; "Come-From-Heaveni-Beckwith and Makemson) is the name of the demi-god Maui's fishhook, which he used to hook land at the bottom of the ocean, in some areas of Polynesia to drag up new islands, but in Hawai'i to pull the islands closer together. Manaiakalani is also the name of the fishhook of the Hawaiian fishing god Ku'ula-kai and his son Ai'ai. This star line ("The Chief's Fishline") goes from 'Iwa Keli'i in the north to Ka Makau Nui o Maui in the south, and is dominated by the northern triangle (Huinakolu) formed by three bright stars seen as representing the Polynesian triangle, with Hawaiki, Rapa-nui, and Aotearoa at the corners. The Manaiakalani star line follows the Iwikuamo'o star line into the sky. In the Hawaiian sky of Kau (summer season, May to October), Manaiakalani is visible for most of the night, just as Ke Ka o Makali'i is visible for most of the night in the sky of Ho'oilo (winter season, November to April). Ka Makau Nui o Maui in Manaiakalani is on the opposite side of the sky (180 degrees away) from Ka Hei-hei o na Keiki in Ke Ka o Makali'i.
Hawaiki (Hawai'i; a new name): This brilliant white super giant is the northernmost star in Huinakolu. No recorded Hawaiian name; in the Society Islands, it is called Pira'e-tea ("White sea swallow") or Taiurua-i-te-haiaparaia-manu ("Festivity-of-the-ascending-bird"-Johnson's pronunciations; Makemson's definitions). The Pira'e was the pet bird of Ra'i-tupua, Sky-builder, who in Tahitian mythology, puts the sky in order after Tane raises it on posts: "Tane measured the spaces between the skies with his sky measure. And while Ra'i-tupua reached up from below and set the Sun and stars and other heavenly bodies in the blue heights, his artisan Ma-tohi, Clearing adze, adjusted them nicely from above. Thus the sky Atea became clear and unobstructed for the gods to fly through" (Makemson 70). The haole name for this star is Deneb (Alpha Cygni).

Rapa-nui (a Polynesian name for Easter Island; a new name): This bright blue star is the first in Huinakolu to appear. Keoe, Keoea, Keho'oea are traditional Hawaiian names: "Keoe is a Hawaiian name which Alexander believes was applied to Vega (Alpha Lyrae); but Kupahu describes it as a group of four stars forming a diamond. Hence it probably stood for the entire constellation of Lyra" (Makemson 220).

Aotearoa (the Maori name for New Zealand; a new name): Traditionally called Humu; this star and the two around it were called Humu-ma and were named for a famous ho'okele and his two sons. The legend told by Kupahu (Johnson and Mahelona 167-8) suggests Humu was a guide star to Kaua'i when a canoe sailed from O'ahu. Humu's two sons sail with the first canoes; the older son who knows star lore gives his advice on which direction to sail in, which angers the steersman. The steersman throws Humu's two sons overboard; they swim behind the stars known as Humu-ma and are rescued by their father, who sails in the last canoe with the King; Humu and his two sons reach Kaua'i, while the rest of the canoes are lost at sea. The haole name for this star is Altair (Alpha Aquilae).

Other Constellations and Stars of Manaiakalani

Nai'a ("Dolphin" or "Porpoise"): This constellation rises after Aoteraroa. The name is a translation of the haole name Delphinus, or Dolphin.

Ka Makau Nui o Maui ("The Big Fishhook of Maui"): This constellation is also called Manaiakalani. The haole name for this constellation shaped like a fishhook is Scorpius.
Lehua-kona ("Southern Lehua blossom"): This red star is on the shank of Ka Makau Nui o Maui. Lehua indicates the color red; or Lehua could be the Hawaiian form of Rehua, the Maori name for Lehua-kona: "'Rehua is a star, a bird with two wings; one wing is broken. Under the unbroken wing is Te Waao-o-Tamarereti [the Canoe of Tamarereti is the Tail of Scorpius in this instance]. When Rehua mouses with his wife Pekehawani [a star close to Lehukona] the ocean is windless and motionless." The generally accepted version of the Rehua myth, according to Best, is that Rehua had two wives, the stars on either side of [Lehua-kona]. One was Ruhi-te-rangi or Pekehawani, the personification of summer languour [ruhi], the other Whak-aonge-kai, She-who-makes food scarce before the new crops can be harvested. Rehua was the guiding star of the Aotea canoe, the craft in which Turi arrived on the west coast of New Zealand, following Kupe's sailing directions"'-Makemson 249-50); Lehua-kona is also called Hoku'ula ("Red star"). The haole name for Lehua-kona is Antares (Alpha Scorpii).

Ka Maka ("The point of the fishhook"); a new name for this star at the point of Ka Makau Nui o Maui; Maka also means "eye" or "favorite"; could be related to the Polynesian name for star "mata"): No recorded Hawaiian name. The Maoris see the hook portion of Ka Makau Nui o Maui as Te Waka-o-Tamarereti, the Canoe-of-Tamarereti (Makemson 267-8). The haole name for this star is Shaula (Lambda Scorpii).

KA LUPE O KAWELO ("The Kite of Kawelo") Click here for a chart of the declinations and houses of the stars in and around Ka Lupe o Kawelo.

The fourth quarter of the sky contains Ka Lupe o Kawelo ("The Kite of Kawelo"), the Hawaiian name given to the Great Square of Pegasus; this quarter also includes the constellation 'Iwa Keli'i (Cassiopeia), as well as the constellations Aries, the Ram, and Cetus, the Whale, and the bright stars Fomalhaut and Achernar in the south.

'Iwa Keli'i (Iwa, the Chief; the 'iwa is the frigate or man-of-war bird; a new name): This new name refers to the bird-like figure of the constellation Cassiopeia, which rises and sets north of the Great Square of Pegasus. The 'iwa (man-of-war bird), like the noio (Hawaiian tern), the manu-o-Ku (fairy tern), and the 'a (the booby), were helpful in locating islands, as they fly out to fish in the morning and return to their islands in the evening. Traditionally, Schedir (Alpha Cassiopeiae) may have been called Polo-ahi-lani ("Shining in heaven"; also Polohilani, the name of one of Hawaii-loa's mariners); Caph (Beta Cassiopeiae) may have been called Polo'ula ("Shining red"); this star may also have been known as Pohina); and Navi (Gamma Cassiopeiae) may have been
called Mulehu ("Twilight," cf. Lehu, "ashes"). According to Makemson, Poloahilani was "named for a blind king of Hawaii. Kupahu remarks: 'The character of this star is blindness, and it shows a whiteness when observed in the night. Poloahilani had two attendants to guide him in and out, one to hold him by the right hand, the other by the left. Through the blindness of this king, his misfortune is applied in the heavens and placed with those stars of the three names mentioned above" (237). In Micronesia, 'Iwa is seen as a fish or porpoise (Johnson and Mahelona).

A wayfinder uses many more stars than those listed in the four star groups above; while many more stars were probably named and known in ancient Hawaii'i, their names have been lost. Some of these other wayfinding stars are given on the graphics of each star group; eventually, the Polynesian Voyaging Society hopes to give all these stars Hawaiian names. (See the bibliography for a list of sources for Hawaiian star names.)