

VENUS NOMENCLATURE 2002: NEW NAMES AND THE WEBSITE'S CHANGED LOOK

G. A. Burba¹, J. Blue², M. Ya. Marov³, E. R. Stofan⁴, D. Soltesz²

¹Vernadsky Institute of Geochemistry and Analytical Chemistry, Moscow 117991, Russia <burba@online.ru>,

²US Geological Survey, Flagstaff, AZ 86001, USA <jblue@usgs.gov>, <dsoltesz@usgs.gov>,

³Keldysh Institute of Applied Mathematics, Moscow 125047, Russia <marov@spp.keldysh.ru>,

⁴Proxemy Research, Rectortown, VA 20140, USA <ellen@proxemy.com>

New names: In 2002, the Task Group for Venus Nomenclature introduced 34 new names of 10 feature types on the planet Venus. These names were subsequently approved by the Working Group for Planetary System Nomenclature (WGPSN), a working group of the International Astronomical Union (IAU). With WGPSN approval, the names became official international nomenclature with provisional status, and as such, they should be marked in publications as 'provisional names' until full adoption by the forthcoming General Assembly of the IAU in 2003. The 34 new names include 2 chasmata, 11 coronae, 1 dorsa, 1 fossa, 5 montes, 2 paterae, 2 plana, 1 tessera, 6 tholi, and 3 valles. The new names are derived from the following different continents: Europe – 11 names, Asia – 11, Africa – 4, North America – 4, South and Central America – 1, and Oceania – 3 names. A list of the new names follows.

*Name Latitude E. Longitude Size, km
Attribute data*

CHASMATA (2)

Jana Chasma 10.5/13.0 S 114.5/121.0 650
Roman moon goddess.

Ralk-umgu Chasma 15.0 S 102.0/110.0 840
Nivkhan (Sakhalin Island) "Lunar Woman".

CORONAE (11)

Acrea Corona 24.2 N 243.7 200
Greek resplendent mother goddess.

Ak-Ene Corona 9.4 N 254.7 150
Altay Great Mother, "White Mother."

Disani Corona 2.7 N 57.5 300
Nuristan (NE Afghanistan) fertility goddess.

Gashan-Ki Corona 11.7 N 243.7 225
Babylonian "Lady of the Earth."

Heqet Corona 7.0 N 169.5 250
Egyptian fertility goddess.

Nei-Teukez Corona 14.2 N 258.8 90
Micronesian (Gilbert Islands, Kiribati) mother of gods.

Ninmah Corona 16.5 N 49.0 700
Sumer-Akkadian mother goddess.

Prthivi Corona 10.8 N 248.5 375
Hindu (India) mother goddess.

Rind Corona 8.2 N 247.5 140

Norse "Earth's Winter Queen," personification of the frost-covered Earth.

Sinlaku Corona 17.3 N 260.3 300
Micronesian (Kosrae Island, Caroline Islands) breadfruit tree goddess.

Tari Pennu Corona 0.3 N 264.3 180
Khonds (India) Earth goddess.

DORSA (1)

Boszorkany Dorsa 17.0/22.5 S 105.0/106.0 550
Hungarian witch, flies over the sky.

FOSSAE (1)

Naguchitsa Fossae 34.4/36.0 S 155.4/163.2 730
Adygan (N. Caucasus) evil warrior, old woman with iron teeth.

MONTES (5)

Gauri Mons 20.2 S 102.2 75
Indian mountain goddess.

Ixtab Mons 15.7 N 242.2 80
Mayan goddess of death.

Nazit Mons 22.5 N 240.0 350
Egyptian winged serpent goddess.

Ptesanwi Mons 2.8 N 45.4 200
Lakota (Sioux) White Buffalo Woman.

Wyrd Mons 14.0 N 247.2 150
Anglo-Saxon weaving goddess.

PATERAE (2)

Garbo Patera 1.5 N 258.2 75
Greta Gustafsson; Swedish-born American actress (1905-1990).

Vibert-Douglas Patera 11.6 S 194.3 45
Allie; Canadian astronomer (1894-1988).

PLANA (2)

Turan Planum 15.5/10.8 S 113.5/120.5 800
Etruscan goddess of love, health, and fertility.

Viriplaca Planum 16.0/24.0 S 106.0/118.0 1200
Roman goddess of matrimonial love and happiness.

TESSERA (1)

Mafdet Tessera 7.5/11.0 N 38.0/39.0 370
Egyptian goddess of judicial authority and executions.

THOLI (6)

Alcyone Tholus 2.1 S 256.4 70
Greek goddess; personification of a rain cloud.

Iaso Tholus 5.2 N 255.3 30

Greek goddess of health, medicine, and recovery.

Lama Tholus 7.8 N 266.0 110
Sumerian protective goddess.

Nipa Tholus	8.4 N	255.7	140
Algonquin moon goddess.			
Pajan Yan Tholus	8.3 N	252.2	80
Cambodian healing goddess.			
Paoro Tholi	10.1/11.3 N	267.0/269.0	225
Maori (New Zealand) goddess of echoes.			
<u>VALLES (3)</u>			
Morongo Valles	17.8/22.3 S	110.5/112.4	660
Makoni (Zimbabwe) name of Venus as evening star.			
Sholpan Vallis	62.0/64.2 S	145.0/155.5	590
Kazakh and Karakalpak name of planet Venus.			
Vishera Vallis	32.1/33.8 S	162.6/160.7	300
Komi-Permyakan (Ural Finn) girl who turned into a river with the same name.			

The website's changed look: All of the named features on the planet Venus are listed in the online Gazetteer of Planetary Nomenclature, which can be found on the Internet at the following URL: <http://planetarynames.wr.usgs.gov/>. The content of the gazetteer is determined by the rules of the WGPSN, and the maintenance of this document is funded by the NASA Planetary Geology and Geophysics Program. The current work on the website is supported by the staff of the USGS Flagstaff Field Center under the USGS Astrogeology Research Program. The online gazetteer is under continuous development.

In 2002 this web resource was given a new look, which made it easier to use and improved its appearance. The gazetteer has a section for each of the 35 planetary bodies that possess named features. The names are listed alphabetically by feature type, and there is also a general alphabetical list of all names on all planets (2 MB text file). The gazetteer contains about 7000 names – adopted, provisional and dropped.

The *Venus* section of the Gazetteer contains 1903 names, which is 29% of the total number of 6655 names listed for all planets (only adopted and provisional names are mentioned here, not the dropped ones). Currently Venus is the body with the greatest number of named features. The Moon is next with 1899 names, and Mars follows with 1453. The Venus section begins with *Venus Nomenclature Table of Contents (TOC)*. This page lists 21 categories of feature types. The appropriate feature type is selected to view all of the named features on Venus of that type. Links to images showing names with features are found at the bottom of the TOC page.

The *Images with Names* section contains two clickable image maps for Venus; one map shows 1:5,000,000-scale *Magellan* radar B&W imagery (62 quadrangles 300 to 600 KB each), and the other shows 1:10,000,000-scale color altimetry maps (8 quadrangles ranging in size from 700 KB to 1.3 MB). The map

files are in Adobe Portable Document Format (PDF). The 62 quads with radar imagery show every approved name on Venus, and the second series of maps, 8 quads with color altimetry, shows only names of larger, regional features. The maps are complementary; the 62 maps show all named features (down to Mamanjan crater, which is just 2 km in diameter), but for tracing the outlines of the largest named features which are up to 10,000 km (such as terrae, planitiae, regiones, and tesserae), the 8-quad map is preferable.

The *Advanced Search* button allows a search of 10 parameters (planetary body, feature name, feature type, diameter, latitude/longitude window, approval date range, approval status, continent, ethnicity, and reference). Some of the options, which are of special interest, are described in brief below.

The 'Feature Name' option restricts the search to features that contain the input letters in the name. If this field is blank, all feature names will be searched.

The 'Diameter' option allows the user to search for features that fall within a selected range of diameters.

The 'Latitude/Longitude Window' option restricts the search to features that are within a selected area on the face of a planetary body. Four fields are used to create a window within which the search will be performed. There is a pull-down menu for each field to specify N or S latitude, as well as E or W longitude.

The 'Continent' option restricts the search to names from a specific continent or large geographic area that is the origin of the name. The gazetteer entries are classified by 7 continents (Africa, Antarctica, Asia, Europe, North America, Oceania, and South and Central America) and 2 large geographic areas (USA and Commonwealth of Independent States, i.e. former USSR, but without the three Baltic states).

The 'Ethnicity' option provides a search of names from a specified country or ethnic group that is the origin of the name. Valid entries can be found in the *Abbreviations for Continents, Countries, and Ethnic Groups* section of the gazetteer. The 'Ethnicity' option is of special interest for Venus because this planet has the greatest diversity of names, originating from different nations worldwide. The approved names on Venus are derived from 192 different ethnic groups, which is 73% of the total number of 263 ethnic groups listed in the gazetteer. ■