

MARTIAN GALLERY

Catchall crater



LOW SPOTS COLLECT DEBRIS, and low spots that water flows through collect even more. This 20-mile [30-km] crater forms part of a valley network in Mars's southern highlands. Material in the crater records many episodes of deposition, landslides, and impact cratering. NASA/JPL/ASU/THEMIS VISUAL IMAGE 20030730A

AMATEUR ASTRONOMERS Comet awards

The Smithsonian Astrophysical Observatory recently presented the 2003 Edgar Wilson Award for discoveries of comets by amateurs to five people. Each recipient received a plaque and a cash prize of about \$3,400.

Tetuo Kudo and Shigehisa Fujikawa, both of Japan, made independent visual discoveries of comet C/2002 X5. Kudo is an astrophotographer who found the comet while waiting to finish an exposure. Fujikawa, a six-time comet discoverer, made his first discovery in 1969.

Comet C/2002 O4, visually detected by Sebastian Hoenig, was the first discovery by a German since 1946.

Communicating via the Internet, Charles Juels and Paulo Holvorcem co-discovered comet C/2002 Y1 from their homes in the United States and Brazil, respectively.

Despite growing competition from professional programs, amateur observers still make contributions. Indeed, 15 of the last 25 Wilson awards went to observers who made visual discoveries. — LAURA BAIRD

MARS PHOTOJOURNAL



TWO KINDS OF EROSION left traces in Labou Vallis on Mars. Water spilling out of the large Mangala Valles system carved Labou as a 170-mile [270-km] valley across cratered terrain in Terra Sirenum. Later, loose material was deposited on the landscape. Then the wind, blowing over and through the valley, cut a smaller-scale pattern into the material. NASA/JPL/MSSS/IMAGE M07-03611

MARS GEOLOGY

A new type of martian landslide

Caltech researchers poring over images from the Mars Global Surveyor have found more than 560 examples of a new type of geological feature on Mars.

It is a landslide that leaves a large, shallow, triangular scar with straight sides and a rampart of debris at the foot. These landslides differ in shape, texture, and bright-



TRIANGULAR SCARS mark the sites of large, dry avalanches — a newly discovered landform on Mars. NASA/JPL/MSSS

ness from the common dark streaks, which are thought to be dust avalanches — and they also differ from the gullies, believed to have been eroded by meltwater.

Scientists Marguerite Gerstell, Oded Aharonson, and Norbert Schorghofer note that these scars of massive avalanches, 13 to 33 feet thick, have been found mostly in areas of past volcanic activity. Many lie on the aureole deposits northwest of Olympus Mons.

They hypothesize that the slides occur in a loosely consolidated surface layer, perhaps volcanic debris that settled from the air. This layer could slide on a more compacted, lower deposit. — R. B.