PLATE I

A composite of planetary images returned from U.S. missions. Clockwise from top: Mercury, Venus, Earth and its Moon, Mars, Jupiter, Saturn, Uranus, and Neptune. (Plates I–V are courtesy NASA/JPL)

Plates I - XX are available in colour as a download from www.cambridge.org/9780521576031

PLATE II
The Magellan spacecraft's imaging radar system, peering through the dense clouds of Venus, acquired data that were the basis of this global mosaic of the planet.

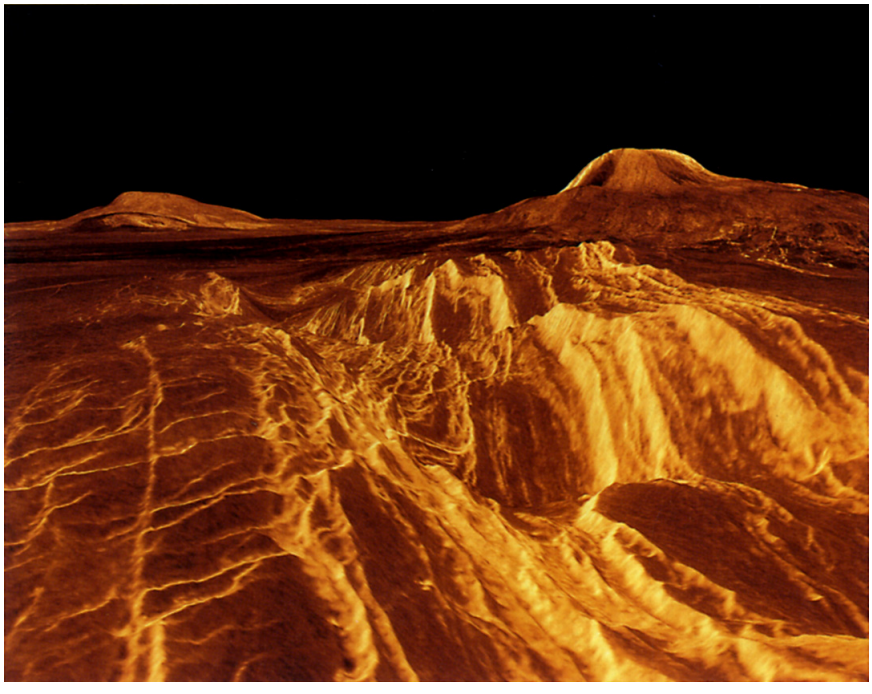

PLATE III
The vertical relief in this image has been exaggerated to highlight the large rift zones and volcanoes marking Venus' surface.

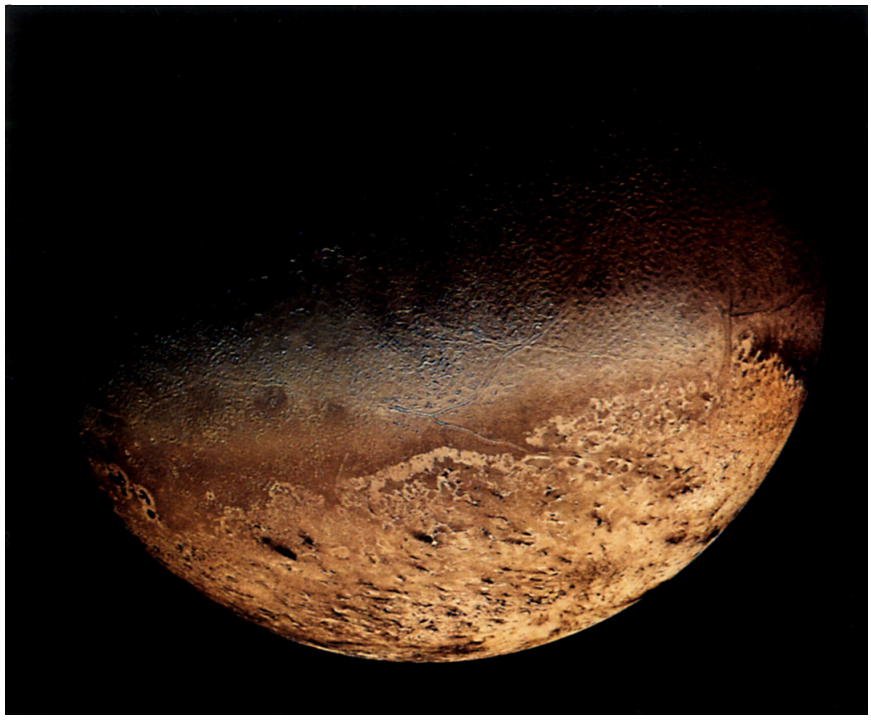

PLATE IV
The surface of Triton, one of the Neptunian moons, exhibits a brownish color suggestive of an organic residue. (Image processing by U.S. Geological Survey, Flagstaff, AZ)

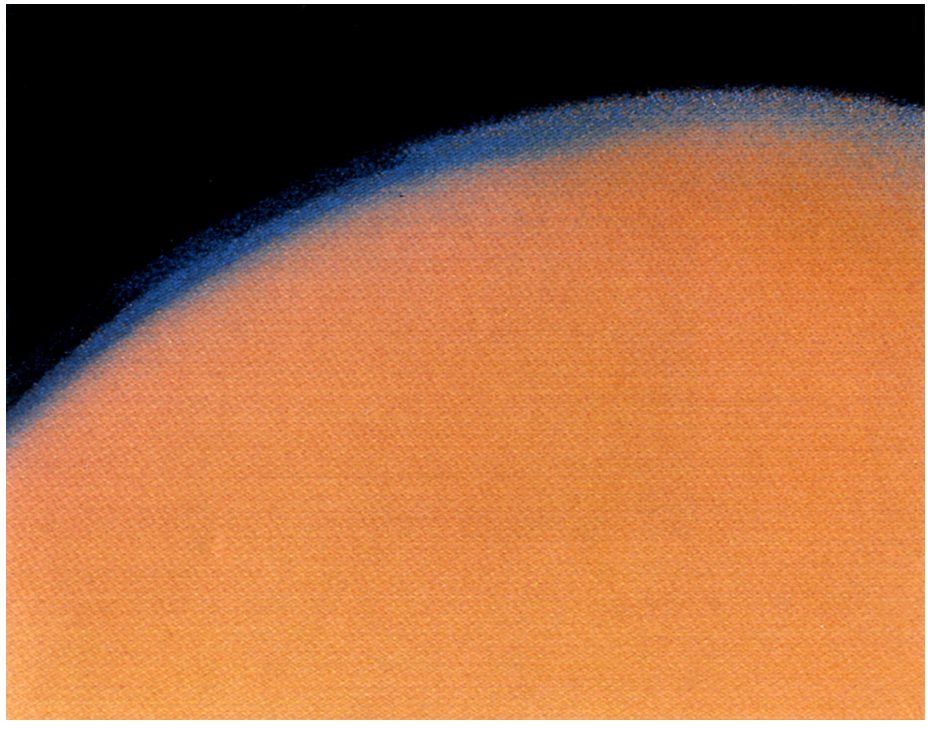

PLATE V
Made up of organic smog particles, Titan's thick haze layer appears orange in this false-color image and lies below the thinner, blue layers of haze.

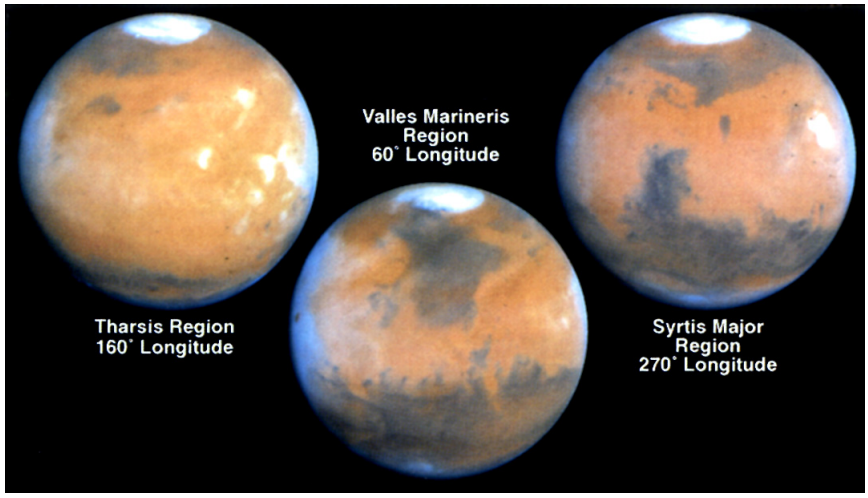

PLATE VI
A telescopic view of Mars is not nearly as good as these Hubble Space Telescope images.

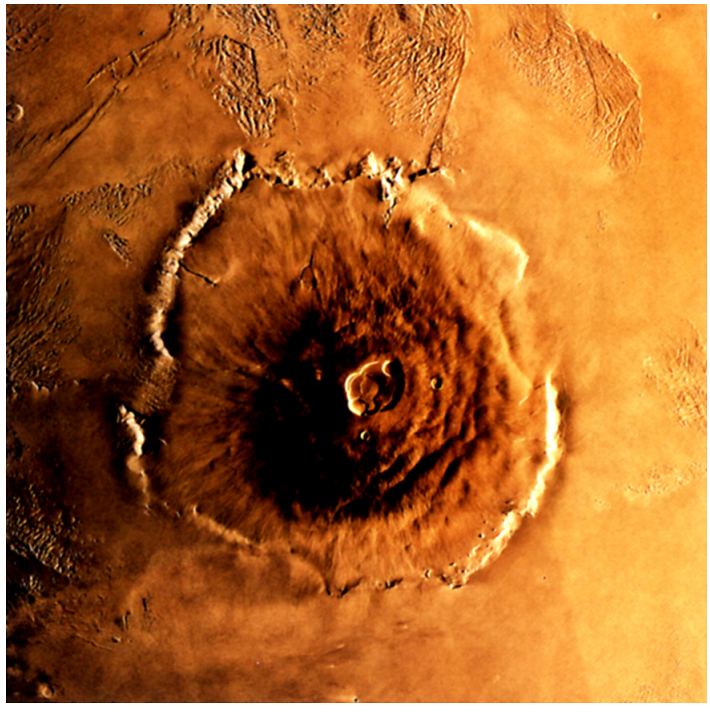

PLATE VII
This exquisite, highly processed picture of Olympus Mons, the largest volcanic structure in the solar system, vividly demonstrates how deceptive the early views of Mars were in the 1960s. In this scene, the sun is coming from the lower right. There is a large complex caldera in the center of the image that itself is large enough to include the whole island of Hawaii. At the base of the volcanic construct is a high escarpment, testifying to an ancient period of erosion after the main volcanic construct was emplaced. This structure is about 500 kilometers (350 miles) in overall dimension and rises nearly 29 kilometers (about 90,000 feet) above the mean Martian surface.

PLATE VIII

Impact of Comet Shoemaker – Levy 9 with Jupiter as viewed from one of the trailing fragments in the comet string. In this painting by Don Davis, one of the comet nuclei has just struck the planet, creating a bright flash as it explodes in the atmosphere; the fragment in the foreground will strike the planet in about 36 hours. The energy released in each impact is several million megatons, depending on the size of the fragment. (Courtesy NASA Ames Research Center)

PLATE IX

The battered planet Jupiter as imaged by the Hubble Space Telescope on July 17, 1994, about two hours after the impact of fragment G of Comet Shoemaker – Levy 9. The sharp circular ring around the impact site is an expanding atmospheric wave caused by the explosion, whereas the asymmetric dark apron consists of ejecta from the explosion that has fallen back into the jovian stratosphere. The long-lived dark debris clouds from these explosions are comparable in size to the entire planet Earth. (Courtesy HST comet team and NASA)

PLATE X
Voyager 1 photograph taken from the outer edge of the solar system, showing the Earth as a pale blue dot in a sunbeam.

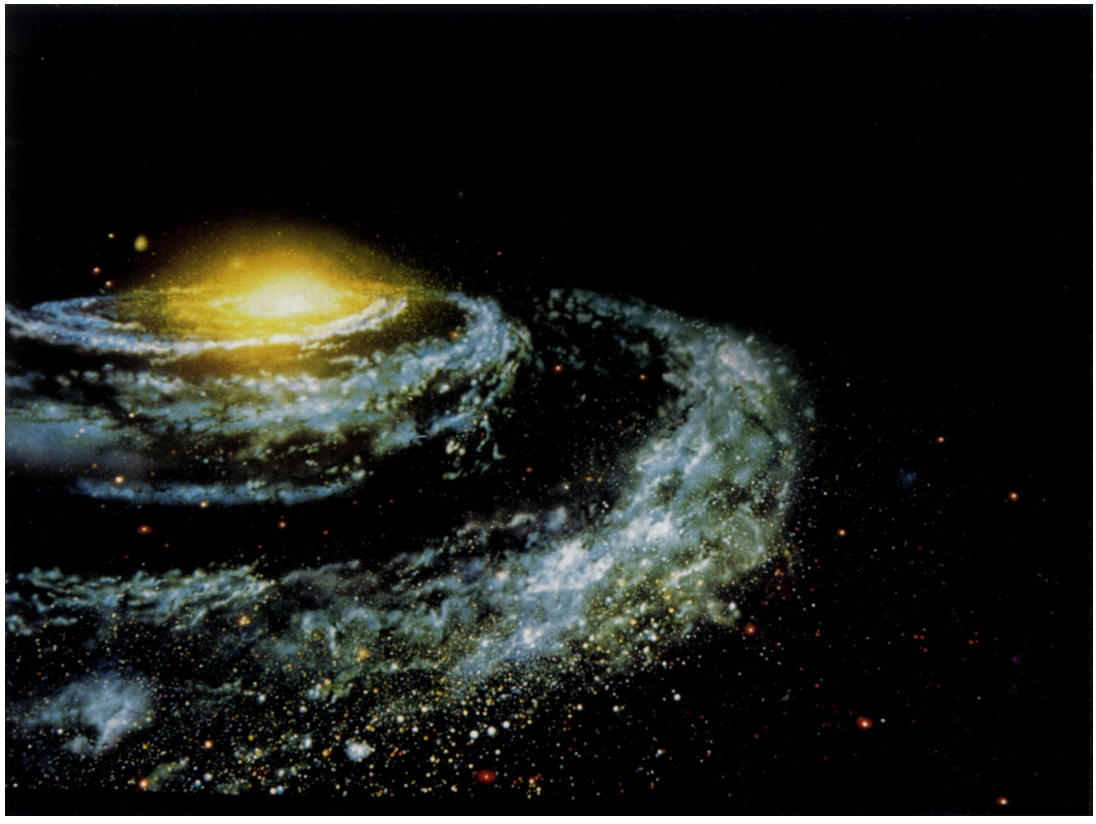

PLATE XI
"Approaching the Milky Way Galaxy" from *Cosmos*, painting by Jon Lomberg©.

PLATE XII
"Dinosaur's Last Sunset" by Jon Lomberg©.

PLATE XIII

Image from a slide set on evolution produced by the Life in the Universe curriculum project of the SETI Institute in Mountain View, California. Slide art and design by Jon Lomberg and Simon Bell. ©LITU Project, SETI Institute.

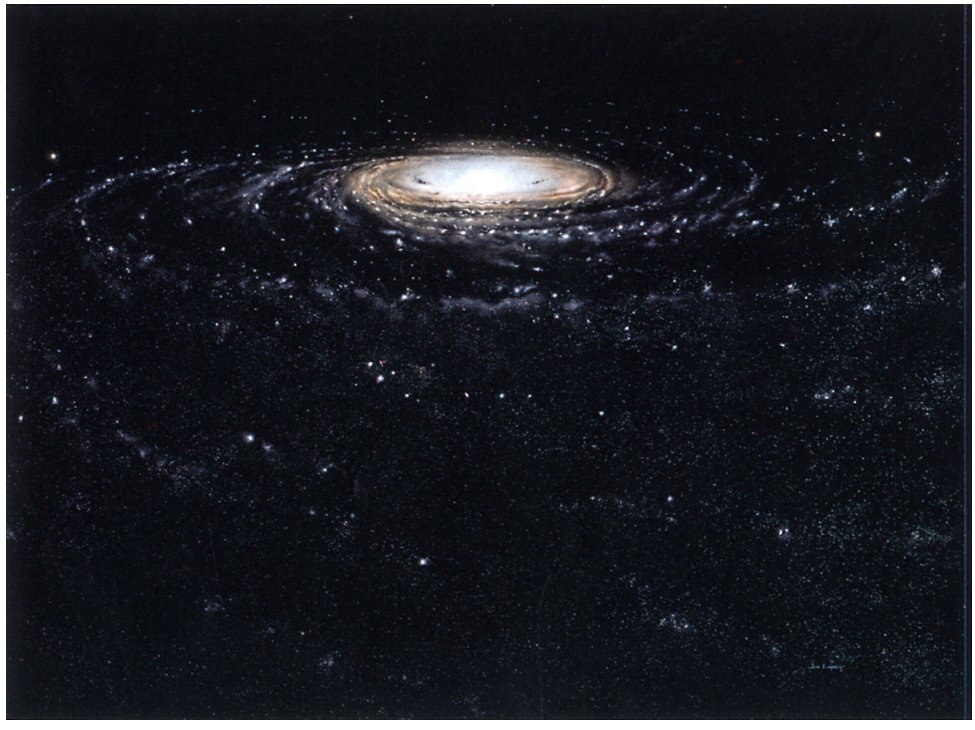

PLATE XIV

"Portrait of the Milky Way" by Jon Lomberg. The most accurate image of our galaxy yet made. ©Artist and National Air and Space Museum.

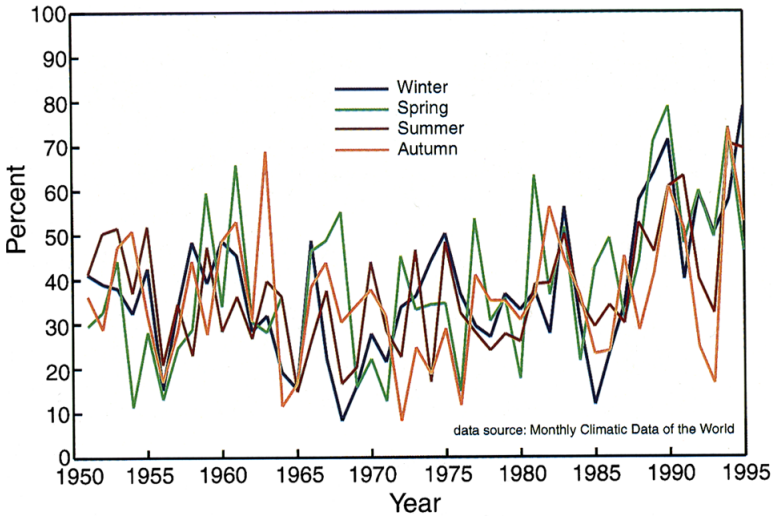

PLATE XV
Percentage of warm meteorological stations at latitudes 30–60°N.

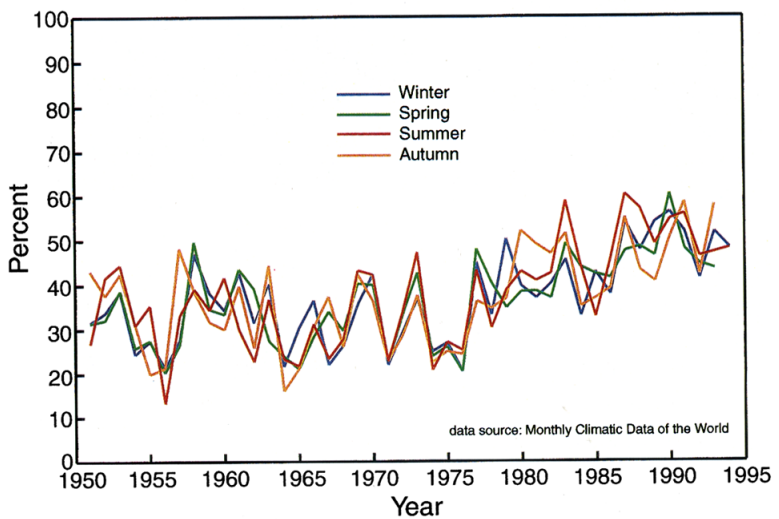

PLATE XVI
Percentage of warm meteorological stations averaged into six latitude zones with each zone weighted by area.

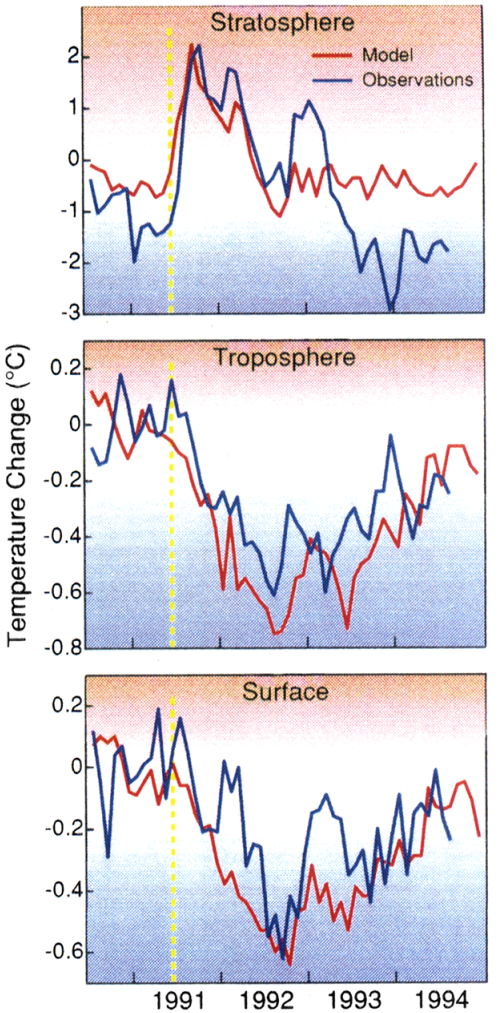

PLATE XVII
Comparisons of climate model predictions, made immediately after the eruption of Mount Pinatubo in 1991, with subsequent observations.

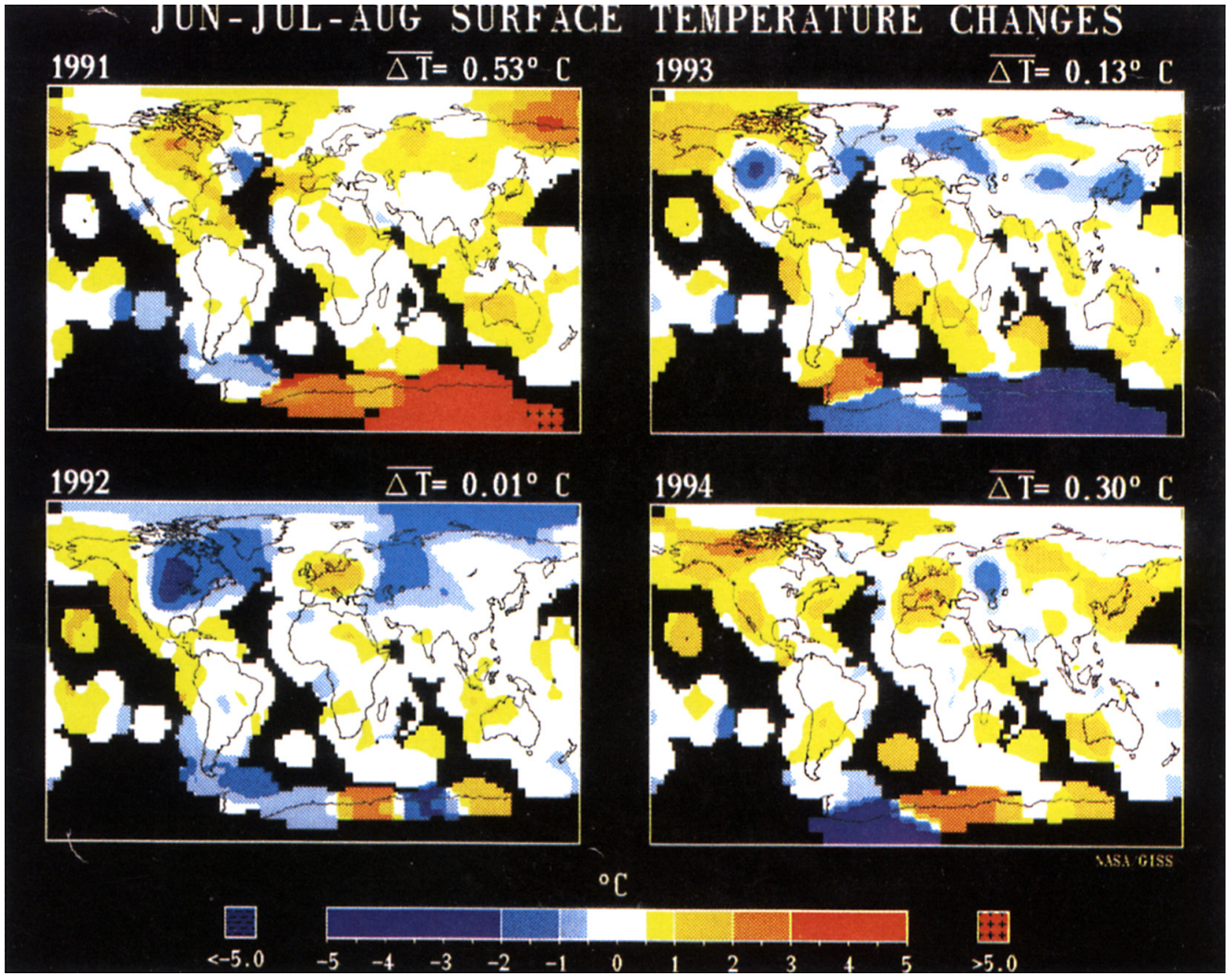

PLATE XVIII
June–July–August surface air temperature anomalies, relative to 1951–80 mean.

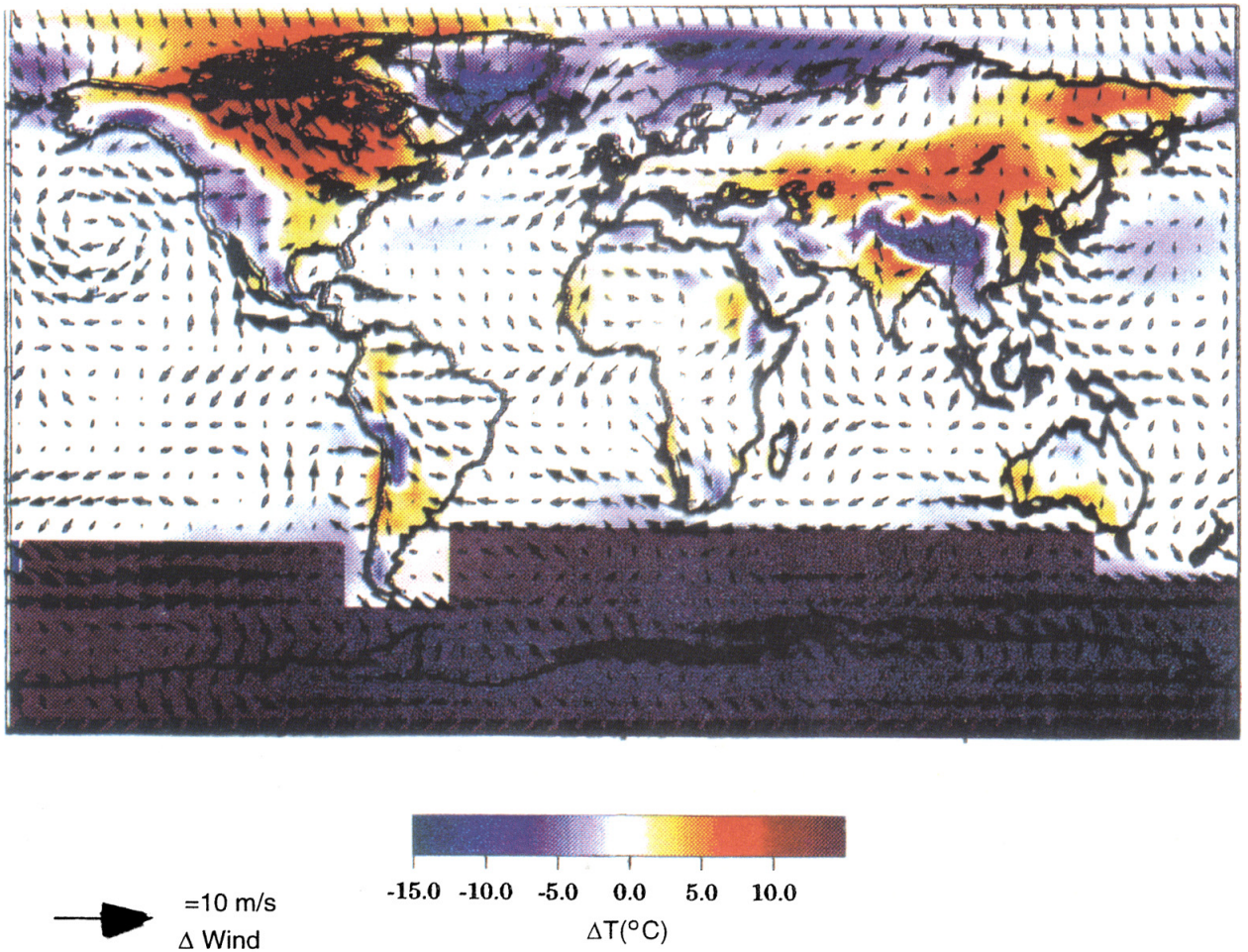

PLATE XIX
Difference between global climate model and observed climatologies for surface air temperature and surface winds, for the climate model used in the 1994 Goddard Institute for Space Studies Summer Institute.

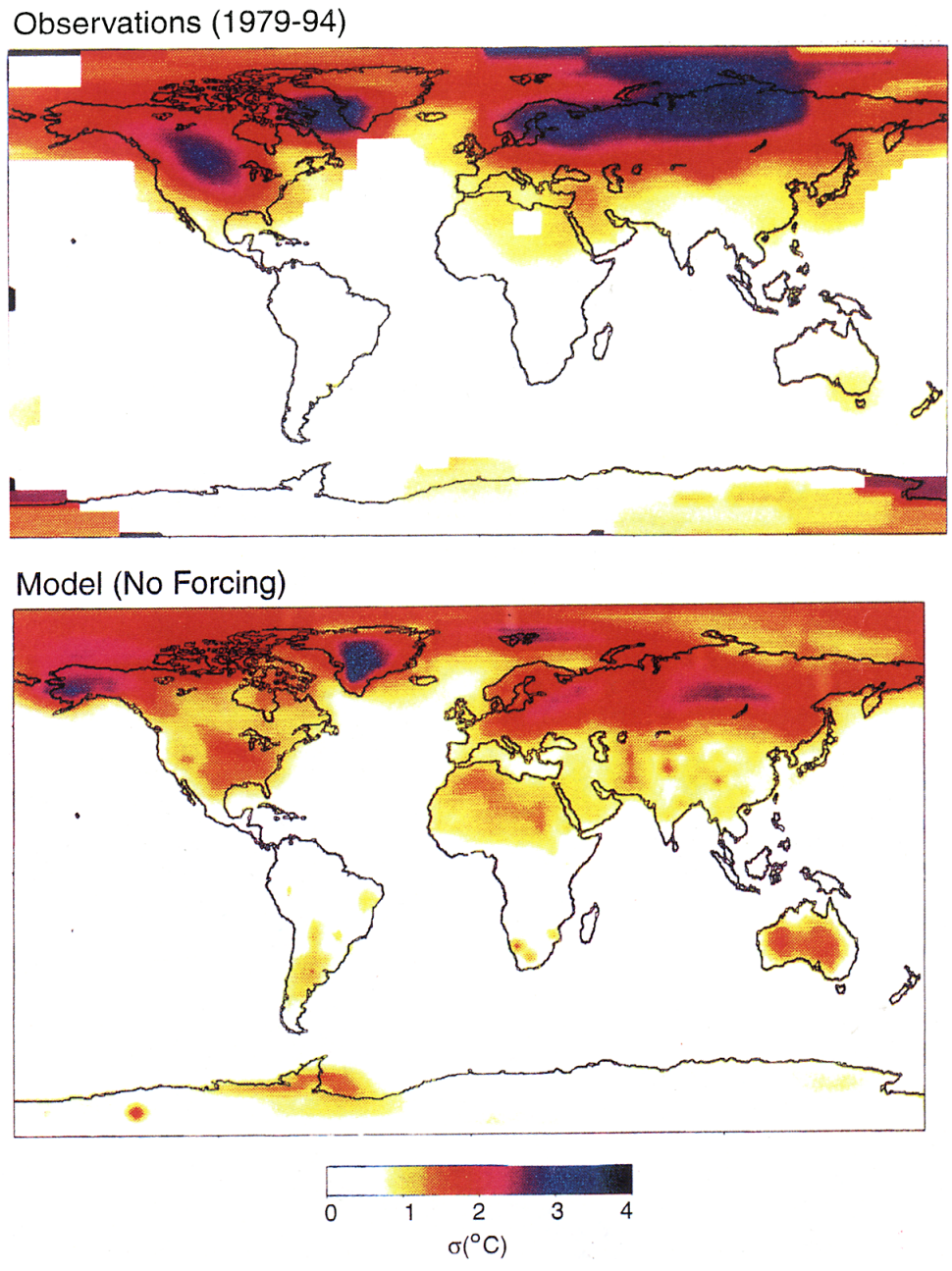

PLATE XX

Observed standard deviation of surface air temperature for 1979–94 and the same quantity produced by the global climate model in the absence of climate forcings.