

# Unmanned Satellites on Postage Stamps: 41. The Giotto Satellite

by Don Hillger (SU-5200) and Garry Toth

*Note: With this installment, the numbering for this series of articles is back on track, after the last few out-of-order articles.*

This is the forty-first in a series of articles about un-manned satellites on postage stamps. This article features the **Giotto** satellite of the European Space Agency (ESA). Giotto was launched from Kourou in French Guiana on 2 July 1985, as ESA's first deep space mission. The Giotto satellite is named after Giotto di Bondone (1266-1337), who painted Comet Halley. That aspect is featured on several of the postage stamps issued specifically for Comet Halley by many different countries at or around 1986, at its last sighting.

The Giotto mission was designed to study Comet Halley during its 1986 approach to the Sun. Comet Halley has a return period of 76 years, having been seen numerous times for well over 2000 years. In 1710, Edmond Halley noted that the comet had been seen in 1531, 1607, and 1682. He then applied Newton's laws of motion to predict that it would return in 1758. This prediction turned out to be correct, but unfortunately Halley did not live to see the comet's return. Nevertheless, it was later named in his honor. Comet Halley will next return in 2062, so for most everyone it's a once-in-a-lifetime event.

Comet Halley was visited by several spacecraft in 1986, but in fact the first-ever encounter of a comet with a spacecraft occurred in 1985, when the International Cometary Explorer

(ICE, formerly known as Explorer-56), approached Comet Giacobini-Zinner. The Explorer satellite series, including Explorer-56, was covered in the 16th article in this series.

In addition to Giotto, Comet Halley was visited by a four other spacecraft, two Russian (Vega-1 and 2), and two Japanese (Suisei and Sakigake, from the Planet series). All four will be covered in due time in future articles in this series.

Giotto provided the first close-up images of a cometary nucleus. The spacecraft approached to within 600 km of Comet Halley, recorded its size and shape, and discovered that it is very dark, having a very low albedo/reflectivity.

Giotto was the first spacecraft to encounter two comets. In 1992 it passed within 200 km of Comet Grigg-Skjellerup in an extended mission permitted by an encounter with the Earth in 1990 which provided a gravitational assist from its flyby. Giotto operations were officially terminated in 1992, but the spacecraft made another flyby of the Earth in 1999.

The body of Giotto is a short cylinder nearly 2 m in diameter and about 1 m in length. Including the tripod surrounding the high-gain dish antenna on top, the total length is nearly 3 m. The shape of Giotto was based on that used by ESA-GEOS spacecraft. (The ESA-GEOS series will also be covered in a future article in this series). Giotto is a spin-stabilized design, with a spinning body and an

antenna that is despun to point back toward the Earth.

Giotto is shown on over 200 postal items. Most of the stamps showing Giotto were part of the Comet Halley series issued by many countries in 1986. A few stamps were issued in earlier years in anticipation of the encounter with Comet Halley, and other postal items were issued in later years, often along with other noteworthy spacecraft.

A selected few items will accompany this article, those with especially good reproductions of Giotto. Readers are encouraged to visit the authors' website to view the entire collection of items showing Giotto. If readers know of

other postal items, the authors would appreciate knowing about them.

A checklist of postal items identified as showing the Giotto satellite (<http://rammb.cira.colostate.edu/dev/hillger/giotto.htm>) is available on the Website developed by the authors for the unmanned satellites featured in this series of articles (<http://rammb.cira.colostate.edu/dev/hillger/satellites.htm>). The Website includes images of the Giotto satellite, as well as images of launch covers and other postal items that feature this satellite. E-mail correspondence with the authors is welcome. Don Hillger can be reached at [hillger@cira.colostate.edu](mailto:hillger@cira.colostate.edu) and Garry Toth at [garry\\_toth@hotmail.com](mailto:garry_toth@hotmail.com).



*Angola Unknown  
(Mi unknown) 2001*



*Belize 812c (Mi875) One of strip of 3 (812 (a-c)),  
or three of MS9 (812d (3x (812 (a-c)))) 1986*



*Central African Republic 848 (Mi1273A) 1987*



*Benin 616 (Mi435) 1986*



*Djibouti Unknown c  
(Mi unknown)  
One of MS9 (a-i) 2010*



*Cyprus 780 (Mi772) From  
MS20 (780a (20x 780)) 1991*



*Comoro Islands B4f  
(Mi859A)  
One of MS8 (B4 (a-h))  
(Mi854A-861A) 1988*



*Dominica 2580 (Mi3742-3735)  
In (upper-right) margin of MS4  
(2580 (a-d)) 2006*



*Central African Republic  
Mi1247A 1986*



*Gambia 2174c (Mi3283) One of  
MS6 (2174 (a-f)) 1999*



*Grenada 3603 (BL756)  
In (upper-left) margin of  
MS6 (a-d) 2006*



*Ghana 2570 (Mi3904-3909)  
MS6 (2570 (a-f)) 2007*



*Fiji 553 (Mi547) 1986*



*Grenada Carriacou 2206f  
(Mi3202) One of MS6 (2206  
(a-f)) (Mi3197-3202) 2000*



*Grenada Carriacou 2205b  
(Mi3192) From MS6 (2205  
(a-f)) (Mi3191-3196) 2000*



*Gambia 3047  
(Mi5709-5712)  
MS4 (3047 (a-d))  
2007*



Germany (West)  
1456 (Mi1273) 1986



Guyana 3503f (Mi6905)  
One of MS6 (3503 (a-f))  
(Mi6900-6905) 2000



Kabardino-Balkaria Local a  
One of local MS6 (a-f) 2000



Mauritius 628 (Mi624) 1986



Ossetia (South) Unknown  
(Mi unknown) 2001?



Guinea Republic BL1486A  
In (upper-left)  
margin of SS1 2007



Ireland 832 (Mi759) From  
MS10  
(832a (10x 832)) 1991



Malagasy Republic 792  
(Mi1058A) 1987



Niger C363 (Mi979A)  
1985



Hungary 2975  
(Mi3809A) 1986



Malawi 481 (Mi464) 1986



Norfolk Island 381a (Mi381)  
One of pair (381 (a-b))  
(Mi381-382) 1986



St. Kitts 666 (Mi935-940) MS6 (666 (a-f)) 2006

Maldives Islands  
2896 (Mi4544-4547)  
On two stamps and in  
(upper-right)  
margin of MS4  
2006



Udmurtia Unknown i  
(Mi unknown) One of MS9  
(a-i) 2001



Sierra  
Leone 2870c  
(Mi4961)  
One of MS6  
(2870 (a-f))  
(Mi4959-



Zambia 355 (Mi365) 1986

Netherlands  
None  
City Post  
local stamp  
1986

