# Gemini-mission Images of Earth

By Don Hillger and Garry Toth

This article features images of the Earth taken during Gemini missions. Many of these images feature the Gemini spacecraft and a view of the Earth below the spacecraft as taken by astronauts from the various Gemini missions. A summary of the images to be featured will be given first, and each official NASA photo will be presented along with a good reproduction of that photo as found by the authors on either a postage stamp or a cover.

**Gemini-mission Earth imagery summary table**

The following table summarises the Gemini-mission Earth images that will be covered in this article. The authors have found 25 different Gemini-mission Earth photos taken by the astronauts on the Gemini missions, which were reproduced on postal items. Of those, 7 selected Gemini-mission photos will be discussed, most of which contain some interesting details, of either the Gemini missions or features of the Earth's surface or clouds in the background of the NASA photos. Only one postal item reproduction of each Earth photo will be presented. Readers should refer to the authors' website for other examples of Gemini-mission photos as reproduced on postal items.

| Gemini mission | Date (yyyy-mm-dd) | NASA photo number | Approximate number of postal items (stamps + covers) |
|---|---|---|---|
| Gemini-4 | 1965-06-03 | S65-30428 | 3 + 1 = 4 |
| Gemini-4 | 1965-06-04 | S65-34661 | 1 + 0 = 1 |
| Gemini-9A | 1966-06-03 | S66-37923 | 1 + 0 = 1 |
| Gemini-10 | 1966-07-19 | S66-46120 | 1 + 0 = 1 |
| Gemini-11 | 1966-09-14 | S66-54810 | 3 + 0 = 3 |
| Gemini-11 | 1966-09-14 | S66-54706 | 1 + 1 = 2 |
| Gemini-12 | 1966-11-12 | S66-63536 | 8 + 1 = 9 |

## NASA photo and postal item comparisons

The first comparison is for Gemini-4, NASA photo S65-30428 from 3 June 1965. This Gemini-4 image of Astronaut Ed White's spacewalk with Earth in the background was featured as the cover article of *Life* magazine on 18 June 1965, with the title "The Space Walk." This Gemini-4 photo was also reproduced on 4 postal items found by the authors. A stamp issued by Sharjah in 1970 reproduces the spacewalk scene in the bottom half of the stamp.

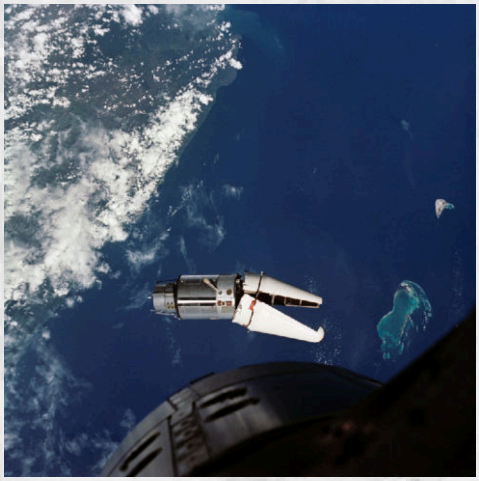


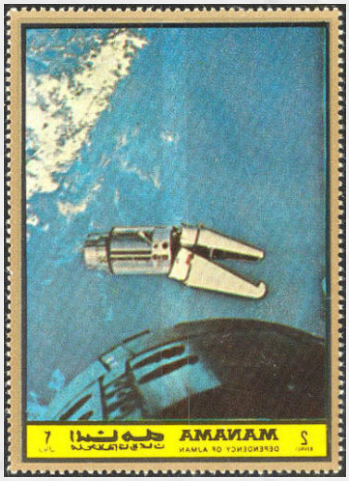
(left) NASA photo S65-30428 from Gemini-4 on 3 June 1965;
(middle) *Life* magazine cover from 18 June 1965;
(right) Sharjah *Michel* 686A (1970).

The next photo/reproduction comparison is also from Gemini-4. This is NASA photo S65-34661 from 4 June 1965, a Gemini-4 view of the southeastern tip of the Arabian Peninsula with the Gulf of Oman at the right. The lighter area at the lower left is desert sand with Seif dunes, which are long and narrow sand dunes or chains of dunes, linear or slightly sinuous, generally oriented in a direction parallel to the prevailing wind. These dunes have sharp crests and so are named for the Arabic word for "sword." They are often large enough (e.g. lengths of 150 km or more) that they are easily visible in satellite images available at the time. A single postal item was found by the authors with a reproduction of the NASA photo, a stamp issued by Muscat and Oman in 1969, which correctly identifies the image as from Gemini-4.


(Left) NASA photo S65-34661 from Gemini-4 on 4 June 1965;
(right) Muscat and Oman *Scott* 109 *Michel* 110 (1969).

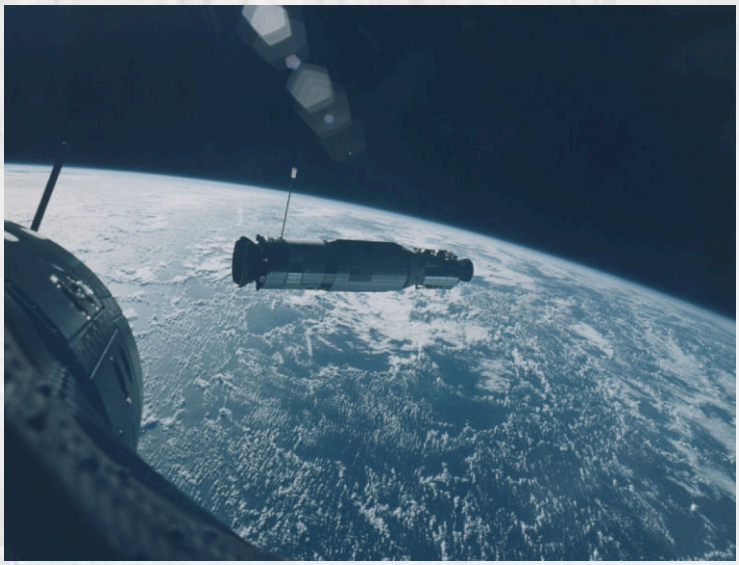
The next image comparison is for Gemini-9A. NASA photo S66-37923 from 3 June 1966 shows the ATDA (Atlas Automated Target Docking Adapter) about 20 m from the Gemini-9A capsule. Its fairing (protective cover) opened partially but failed to separate, so the planned docking could not take place. Those open "jaws" brought a reptilian analogy to Astronaut Thomas Stafford's mind when he said that the ATDA "looks like an angry alligator." The only postal item with this photo was issued by Manama in 1972, but the stamp image has to be flipped-horizontally to match the orientation of the NASA photo. Flipping or rotating of images is often done in stamp designs, but for this stamp there appears to be no good reason for this change, as the image would have worked as well without flipping it.

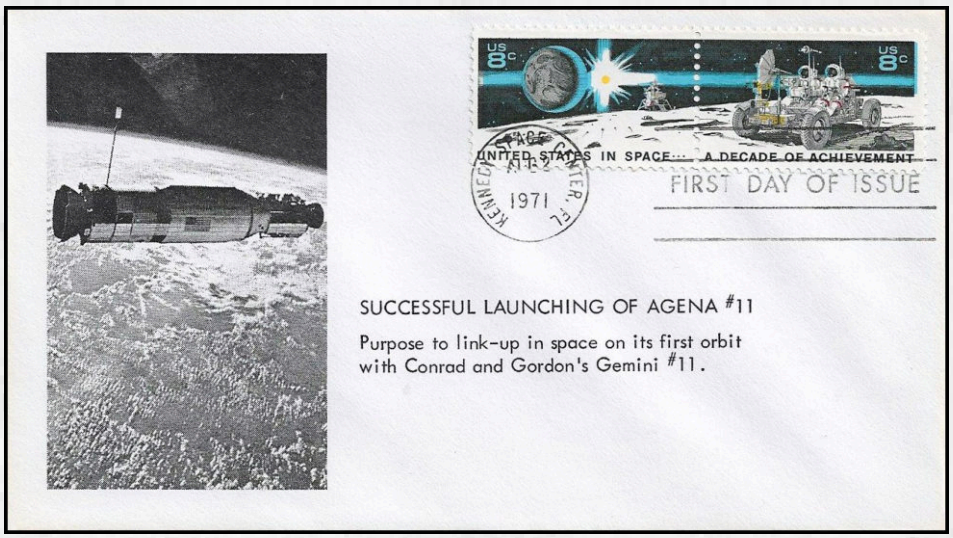





(left) NASA photo S66-37923 from Gemini-9A on 3 June 1966;
(right) Manama *Michel* D973A (1972) *flipped-horizontally*.

The next comparison is for Gemini-10. NASA photo S66-46120 from 19 July 1966 was featured as the cover article of *Life* magazine on 5 August 1966, with the title "Highest photos of Earth taken by Man." This photo shows the GATV-10 (Gemini-Agena Target Vehicle-10) at a distance of about 14 m from the Gemini-10 capsule with Earth in the background. The single postal item found by the authors is a Sarzin black-and-white reproduction of the NASA photo in the cachet on a USA FDC from 1971.



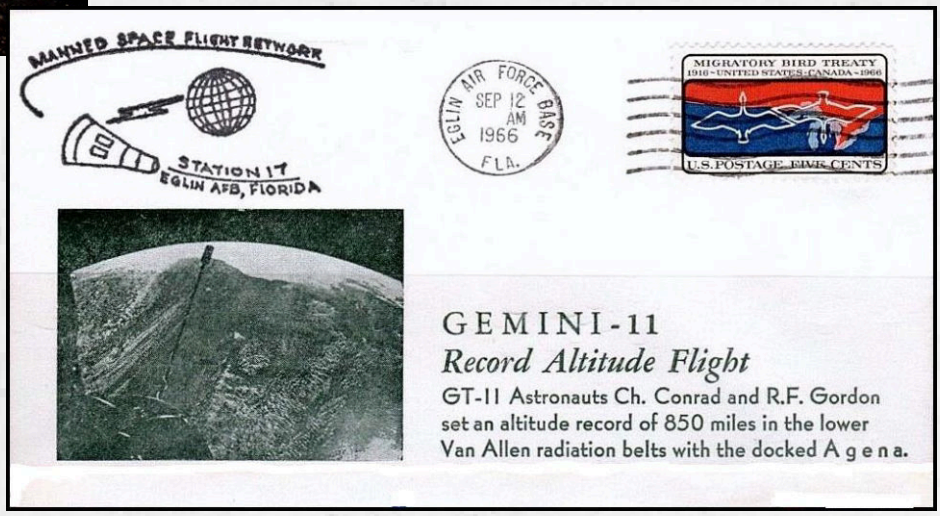

(top left) NASA photo S66-46120 from Gemini-10 on 19 July 1966;
(top right) *Life* magazine cover from 5 August 1966;
(left) Sarzin black-and-white cachet on a USA *Scott* 1435b *Michel* 1046-1047 FDC (1971).

Next are a couple of image comparisons for Gemini-11. The first is NASA photo S66-54810 from 14 September 1966, with Gemini-11 tethered to GATV-11 above the southern Gulf of California and Baja Peninsula, with the city of La Paz at the base of the Bay of La Paz at the bottom of the photo. The bright area at the right is sun glint (specular reflections) off the ocean surface. The authors found 3 postal items with reproductions of this photo. A souvenir sheet of one stamp issued by the Maldives in 2019 has the Gemini-11 photo in the left margin, which is appropriate since the sheet honors Astronaut Richard F. Gordon Jr., who was pilot of Gemini-11 alongside Astronaut Pete Conrad.

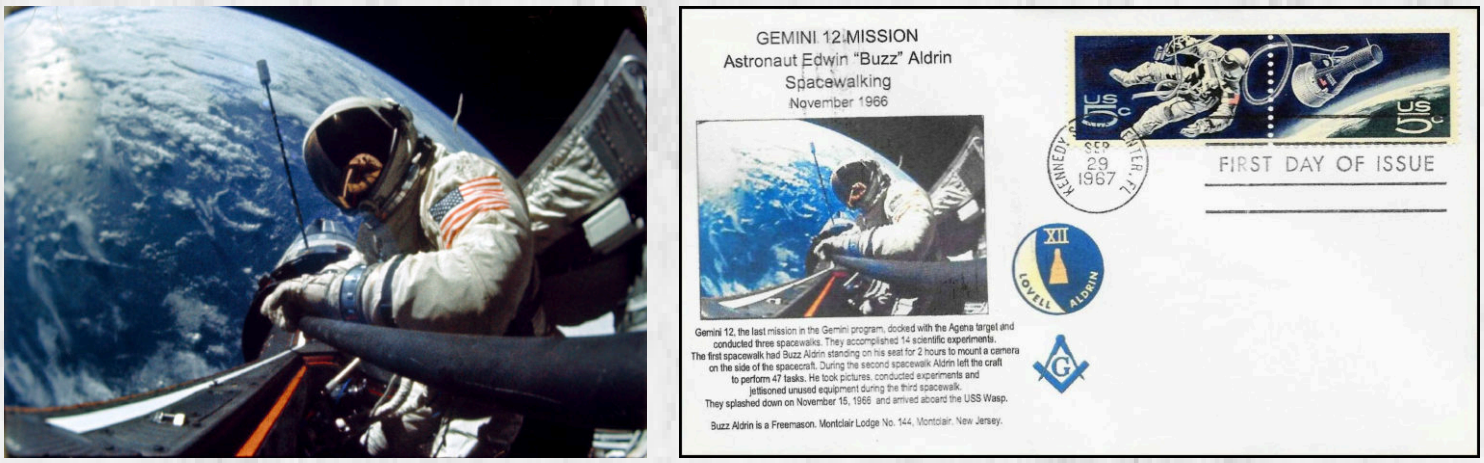

(left) NASA photo S66-54810 from Gemini-11 on 14 September 1966;
(right) Maldives *Michel* BL1390 (2019).

A second comparison for Gemini-11 is NASA photo S66-54706 also from 14 September 1966, showing Gemini-11 docked with GATV-11 in a high orbit (1370 km altitude) above Australia. The photo shows a mixture of cloud types over western Australia and part of the Indian Ocean. The view is toward the northwest. The authors found 2 postal items with this image, one of which is the black-and-white reproduction of the NASA photo in the cachet of a USA cover from 1966 marking the "Gemini-11 record altitude flight".

(left) NASA photo S66-54706 from Gemini-11 on 14 September 1966;
(below) Black-and-white cachet on USA Gemini-11 event cover (1966).



The final comparison is for Gemini-12. NASA photo S66-63536 from 12 November 1966, shows Astronaut Edwin Aldrin in the open hatch of Gemini-12, with GATV-12 behind him and Earth in the background. The Earth's horizon is curved due to the fisheye lens of the camera. The bright area at the upper left is sun glint off the ocean surface. The authors have found 9 postal items with reproductions of this NASA photo. One item is the cachet of a USA FDC from 1967 featuring "Buzz" Aldrin spacewalking.




(left) NASA photo S66-63536 from Gemini-12 on 12 November 1966;
(right) Cachet on USA *Scott* 1332b *Michel* 930-931 FDC (1967).

In this article, a total of 7 comparisons have been made between NASA photos from Gemini missions with Earth in the background and reproductions of those photos on postal items. Readers are encouraged to look at the authors' website for additional postal items for comparisons presented here, or for other Gemini-mission photos and postal reproductions that were not selected for use in this article.

**Online and author contact information**

A checklist of postal items showing Gemini-mission images is available at **http://rammb.cira.colostate.edu/dev/hillger/Gemini-images.htm**, with a separate section for each Gemini-mission photo. The authors would like to hear from anyone who knows of additional reproductions of the Gemini-mission images on postal items, as the authors will update the online details as new information is received. E-mail correspondence with the authors is welcome. Don Hillger can be reached at don.hillger@colostate.edu and Garry Toth at gmt.varia@gmail.com.

## OSIRIS-REx Asteroid Sample Return

The OSIRIS-REx Asteroid Sample Return Mission envelope was designed by Pete Sarmiento and is an original envelope to commemorate this event. It commemorates the return of these samples from the asteroid Bennu. The sample return capsule was successfully recovered in the Utah desert at the Utah Test and Training Range on 24 September 2023.


The cover and special postmark "United States, OSIRIS-REx Return To Earth, Forever" were cancelled on the first day of issue. This cancellation was applied at the Salt Lake City, Utah post office and was dated 22 September 2023. This was the closest post office to the landing site of the OSIRIS-REx return capsule.

*(Left) Pete Sarmiento's OSIRIS-REx return capsule cover.*

By Nik Steggall