Frequently Asked Questions: NSSDC Photo Gallery

This FAQ is not intended to answer general questions about NASA photos or information about solar system bodies. These FAQs (for the sci.space newsgroups on usenet) are available at Ohio State University.
URL: http://www.cis.ohio-state.edu/hypertext/faq/usenet/space/top.html

Contents

1. **Can I use the images from NSSDC's Photo Gallery or do I need to obtain permission from somebody first?**

   All of the images presented on NSSDC's Photo Gallery are in the public domain. As such, they may be used for any purpose. NSSDC does ask, however, that you acknowledge NASA and the NSSDC as the supplier of the data. In addition, where the source of the image (by project or as a specific person) is credited in the text, you should also acknowledge that, too.

   In addition, NASA further requires that NASA images cannot be used to imply endorsement by NASA.

2. **I'd like to get a copy of these images as a photo product. How?**

   Many of the images in the Photo Gallery can be obtained from NSSDC either as a hardcopy photograph, transparency, or 35 mm slide. The photographs which can be so obtained have photo numbers (usually NASA press release, or PR, numbers) next to them. To order such photos, send an e-mail to our user support office at request@nssdca.gsfc.nasa.gov or phone at (301)286-6695. You should have the photo number of the images you want and the name of the mission for each photo.

NSSDC does charge for photographic materials on a cost-recovery basis. The current cost of different photographic reproductions is available in NSSDC's Photo Price List.

Some of the images are not available as a photo product at this time. Others are available on CD-ROM. These can generally be identified by the lack of a NASA PR number. Images from the Hubble Space Telescope which are identified with both a Space Telescope number (e.g., STScI-PRC-96-30) *and* a NASA HQ number (e.g., 96-H-634) are available from NSSDC. Ones with *only* a STScI number are not currently available from NSSDC.

3. **Why are all of the "full-resolution" images on the Photo Gallery in JPEG format rather than GIF?**

   The choice of JPEG format over GIF for the larger images was made for two different reasons. The first is a matter of size. In most cases, the JPEG images are smaller. In order to reduce the load on both our server machine as well as on the network and users machine, it was felt that using JPEG compression was a reasonable alternative. It preserves most of the original image, but minimizes the file sizes.

   The second consideration was one of color depth. Although most imagers on spacecraft in use today still have only a depth of 256 levels (gray scale), the color images which are on the photo gallery are often combinations of three such filters. Thus, even though the original single-filter images are only 8-bit (and therefore appropriate for the lossless GIF compression), the resultant color images are actually 24-bit. Since GIF compression gets rid of this additional color information, but JPEG does not, it was felt that the loss of color depth was much more severe than the loss due to using the JPEG compression.

4. **Do you have these images available via FTP as well?**

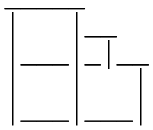
   Yes! We finally have our images available via FTP as well as via the WWW for those browsers (shame on them!) which don't support saving the image. You can FTP to: `nssdc.gsfc.nasa.gov` and set default to `pub/photo_gallery/` to see what is there. At this time, both the captions and the images are available. If you prefer to exercise the link right now, try:
   URL: ftp://nssdc.gsfc.nasa.gov/pub/photo_gallery/

5. **Where can I find images of (insert whatever)?**

   There are a number of reasons you might not have found what you're looking for in the NSSDC Photo Gallery. First, the image(s) may not yet be available. Second, the image(s) may be available, but not (at least yet) from NSSDC. Third, it may be something which no one has suggested be put up. Lastly, it may be outside the province of NSSDC's responsibilities. In all cases, feel free to send your feedback and we'll try and address your concerns. However, you might also try first looking through the other sites to which the Photo Gallery provides links. The list is not a comprehensive listing of all sources of images, but covers most of the areas we are asked about most frequently.

6. **Why is there a missing piece out of many of the Hubble Space Telescope images? Where is the missing data and why are you not showing it?**

There is no missing data, this is a feature of the design of the particular instrument. The Wide-Field Planetary Camera 2 on HST has four CCD (charge-coupled device) detectors by which it creates an image. The four CCDs are arranged in a rectangular fashion, nominally forming a larger square. However, one of the CCDs has the same number of pixels as the other CCDs, but is only half of the dimension. Therefore the CCDs pictorially are arranged like this:



This CCD is primarily designed for high-resolution photographs of solar system objects (thus the planetary camera part of the instrument name), but on wide-field objects (such as nebulae) all four CCDs are used, thus giving the images their characteristic "bite-out" shape. The data is not missing (except in the sense that there is no detector in that position to image the data), it just is not captured because of the design.

Other NSSDC FAQs of potential interest

- The NSSDC Planetary FAQ Page
- The NSSDC CD-ROM FAQ Page
- The NSSDC Earth FAQ Page

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If you have questions about the images on NSSDC's Photo Gallery, please first consult our Frequently Asked Questions page. Other questions and comments may be submitted using the feedback button on each page.

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Version 2.1, 29 June 1995
Last Updated: 18 August 1998, EVB II