Smithsonian
National Air and Space Museum

Space Shuttle Columbia Reentry Imagery

2009

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Collection Overview

Repository:	National Air and Space Museum Archives
Title:	Space Shuttle *Columbia* Reentry Imagery
Date:	(bulk 2003)
Identifier:	NASM.2004.0029
Creator:	McCullough, Robert L.
Extent:	.18 Cubic feet ((1 box)) 2.062 Gigabytes ((17 digital images))
Language:	English .
Summary:	Photography by Robert McCullough, with *The Dallas Morning News*, capturing the reentry and disintegration of Space Shuttle *Columbia* on February 1, 2003.

Administrative Information

Acquisition Information

Robert L. McCullough, Gift, 2004, NASM.2004.0029.

Processing Information

Arranged, described, and encoded by Amara Pugens, 2023.

Preferred Citation

Space Shuttle *Columbia* Reentry Imagery, NASM.2004.0029, National Air and Space Museum, Smithsonian Institution.

Restrictions

No restrictions on access.

Conditions Governing Use

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Biographical / Historical

The Space Shuttle *Columbia* disintegrated upon reentry on February 1, 2003 due to a failure in the shuttle's heat-resistant tiles, which were damaged during its launch. As the shuttle reentered Earth's atmosphere, the compromised tiles allowed intense heat to penetrate the spacecraft, leading to its breakup over Texas. The loss of *Columbia* and its seven crew members highlighted the critical importance of safety measures and thorough risk assessment in

space missions, prompting NASA to undertake extensive changes in shuttle design, inspection procedures, and safety protocols to prevent such a disaster from happening again.

Scope and Contents

This collection contains 17 digital images showing the disintegration of the Space Shuttle *Columbia* upon its reentry on February 1, 2003. These images were shot by the donor, Robert McCullough, with his Canon EOS Elan 7E with a Canon 75-300mm Image Stabilizer Zoom set at 300mm and a 2x converter (600mm, 12x). McCullough held the camera in hand due to the speed of its traverse, and some images exhibit these camera movements. Prints on FujiChrome Provia 400F were made of the focused images and included in the donation as two sets of ten prints. The second set of these ten images are the original full frame images while the first set are duplicates enlarged to show details. The copyright for the images is held by *The Dallas Morning News*.

Arrangement

Photos are in orginial order, which is chronological.

Names and Subject Terms

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:

Astronautics
Space Shuttles, Columbia (OV-102)
Space flight
Space shuttles

Types of Materials:

CD-ROMs
Digital images
Photographs -- Digital prints -- 21st century

Names:

United States. National Aeronautics and Space Administration

Container Listing

Digital Images

Physical Prints

Notes: Ten images taken from the seventeen original digital images and printed into two sets. The second set of these ten images are the original full frame images while the first set are duplicates enlarged to show details.

Image '001' catures *Columbia* prior to any degradation. Image '003' depicts a large segment seperate from *Columbia* while image '004' shows further degradation. Image '005' captures *Columbia* just before and image '006' captures seconds after the major disintegration. Remaining images (008, 009, 012, 013, and 016) illustrate the continue disintegration.