



Smithsonian  
*National Air and Space Museum*

Airplane Cabin Pressurization Collection [Del Mar]

2012

National Air and Space Museum Archives  
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## Collection Overview

<b>Repository:</b>	National Air and Space Museum Archives
<b>Title:</b>	Airplane Cabin Pressurization Collection [Del Mar]
<b>Identifier:</b>	NASM.2012.0013
<b>Date:</b>	(bulk 1938-1957)
<b>Extent:</b>	0.89 Cubic feet ((2 boxes))
<b>Creator:</b>	Del Mar, Bruce E., 1913-
<b>Language:</b>	English .

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## Administrative Information

### Acquisition Information

Bruce E. Del Mar, Gift, 2012

### Preferred Citation

Airplane Cabin Pressurization Collection [Del Mar], Accession 2012-0013, National Air and Space Museum, Smithsonian Institution.

### Restrictions

No restrictions on access.

### Conditions Governing Use

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## Biographical / Historical

Bruce Del Mar (b. 1913) graduated from the University of California, Berkeley, in 1937 with a Bachelor of Science in Mechanical Engineering. During his college summer breaks, Del Mar had worked at Douglas Aircraft Company, and after his graduation he returned to Douglas full-time. At Douglas he worked with other scientists on airplane cabin pressurization, which would allow passengers to comfortably fly above 10,000 feet without oxygen masks. Del Mar, along with Douglas engineer Wolfgang Klemperer, held the patent for the first pressurization system of a commercial aircraft. In 1952, Del Mar used the money he received from royalties on his patents and inventions to found Del Mar Engineering Laboratories in Santa Monica, California. His company, later renamed Del Mar Avionics, built targeting systems for military aircraft. During later years, the company produced HydraSet, a hydraulic lifting device used to hoist space shuttles onto 747s for transport to Cape Kennedy and to move fuel rods in nuclear power plants. Besides

his work in the aviation field, Del Mar also had great success in the medical field and in 1963 he was the first to patent and produce the Holter monitor, an electrocardiogram system that allowed physicians to track their patients' hearts continuously.

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## Scope and Contents

This collection consists of the materials relating to Bruce Del Mar's airplane cabin pressurization and air quality engineering work, including: 82 3.25 by 4 inch glass lantern slides featuring images, graphs and charts of Del Mar's cabin pressurization work including work on the Douglas DC-4E (possibly for a lecture); reports; drawings; correspondence; and issues of Douglas' internal management newsletter. There are also several reports on air transportation of large cargo, including vehicular trailers.

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## Names and Subject Terms

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

Subjects:

- Aeronautics
- Aircraft supplies industry
- Airplanes -- Parts
- Airplanes -- Pressurization
- Douglas DC-4 Experimental (DC-4E)

Types of Materials:

- Drawings
- Lantern slides
- Reports