

Navigating Scientific Ocean Drilling Discoveries

1961

Project Mohole retrieves the first ocean core off California.

1968

The Deep Sea Drilling Project (DSDP) drilling vessel *Glomar Challenger* takes to the seas.

First-Leg DSDP core samples reveal the existence of salt domes.

Core samples provide definitive proof of continental drift and seafloor renewal at rift zones.

Scientists conclude that the ocean floor is probably no older than 200 million years, much younger than the Earth.

1981

Conference on Scientific Ocean Drilling (COSOD 1) meets in Austin, Texas to consider the state of scientific knowledge and chart a new course for future scientific ocean drilling.

1983

DSDP concludes after coring nearly 170,043 m of samples.

1985

The Ocean Drilling Program (ODP) begins operations with *JOIDES Resolution* shakedown.

The First *JOIDES Resolution* research mission studies the evolution of the Bahamas carbonate platform.

JOIDES Resolution is the first scientific ocean vessel to drill deep holes far inside the Arctic Circle.

Drilling results confirm that Greenland, Canada, and Western Europe formed a huge land mass until about 65 million years ago.

JOIDES Resolution is the first drilling vessel to collect samples adjacent to Atlantic Ocean "black smokers."

1987

Conference on Scientific Ocean Drilling (COSODII) meets in Strasbourg, France.

1989

Scientists recover the oldest remaining remnants of the Pacific Ocean's seafloor; 175 million-year-old sediments and ocean crust from the early Jurassic period.

1991

Hole 504B penetrates into pillow lavas and sheeted dikes of the Costa Rica Rift during Leg 140, November 1991.

1993

A link between ice sheet volume and sea-level change is demonstrated during Leg 150, eastern margin of North America, July 1993.

1997

CONCORD, Tokyo: Large international meeting defines the important science to be achieved from riser-drilling operations.

Scientists confirm impact of an asteroid that struck Earth 65 million years ago, from geologic records retrieved from beneath the seafloor during Leg 171B on the Blake Nose, January 1997.

1998

Japan Agency for Marine-Earth Science and Technology (JAMSTEC) undertakes development and construction of a deep-sea riser-equipped drilling vessel.

1999

Scientists establish long-term seafloor observatories in one of the world's most active earthquake zones.

2000

U.S. National Science Foundation (NSF) makes commitment to bring riserless vessel to future Integrated Ocean Drilling Program (IODP).

2001

Interim Science Advisory Structure is established to support transition to IODP.

IODP 10-Year *Science Plan* is published—blueprint for a scientifically ambitious ocean drilling and exploration program.

2002

ODP scientists examine the amount of deep, microbial activity within the sub-seafloor offshore Peru. Living cells were found in all cores, reaching as deep as 420 m into the seafloor, and within rocks as old as 40 million years.

2003

ODP scientists recover evidence that links rapid global climate and ocean circulation change.

ODP concludes.

The U.S. National Science Foundation (NSF) and Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) sign a MOU that launches IODP.

2004

IODP central management office, IODP-MI, opens.

European Consortium for Ocean Research Drilling (ECORD) joins IODP as Contributing Member.

People's Republic of China joins IODP as Associate Member.

2005

Ireland joins ECORD.

Scientific Drilling journal debuts as joint publication of IODP and the International Continental Scientific Drilling Program (ICDP).

Chikyu is delivered to JAMSTEC.

Scientists aboard the *JOIDES Resolution* penetrate a fossil magma chamber through intact ocean crust, a scientific first.

2006

Chikyu undergoes system integration test and crew training.

JOIDES Resolution is demobilized to provide state-of-the-art upgrades to its facilities and drilling capabilities.

Republic of Korea joins IODP as Associate Member: Interim Asian Consortium is established.

2007

Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE) launches—*Chikyu*'s inaugural scientific drilling expedition.

2008

Refurbished U.S.-sponsored riserless drilling vessel *JOIDES Resolution* rejoins IODP drilling operations, providing enhanced coring and laboratory facilities.

Chikyu successfully recovers materials from the megasplay fault zone off Japan.

Australia and New Zealand form the Australia-New Zealand IODP Consortium and join IODP as Associate Member.

2009

JOIDES Resolution recovers a total of 5740.84 m high quality sediments in the Bering Sea. More than 50,000 samples are taken from the cores for paleoceanographic studies.

India joins IODP as Associate Member, supported by India's Ministry of Earth Sciences.

2010

Scientists aboard *JOIDES Resolution* recover thick, unprecedented "tree ring style" records with seasonal resolution of the last 10,000 years from near Antarctica.

2011

New Program Planning.

Series of microbiology-dedicated expeditions will tackle the secret of deep life on Earth.

Poland joins ECORD as the 18th member and the 25th member of IODP

2012

Chikyu will aim to drill the deepest hole in the history of scientific ocean drilling in the NanTroSEIZE project.

2013

New Program will start in October:

The International Ocean Discovery Program 'Exploring the Earth under the Sea'.
www.iodp.org

