

OCS Safety Facts

An annual update of statistics through December 31, 2001

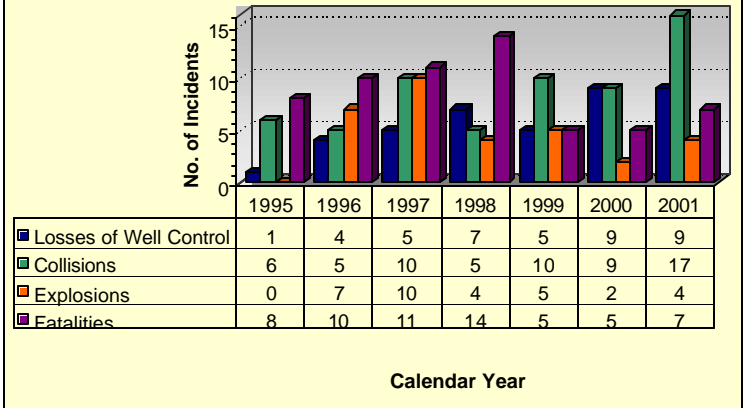
Background

The Minerals Management Service's (MMS's) mission is to manage the mineral resources of the Federal Outer Continental Shelf (OCS) in a safe and environmentally sound manner. The Federal OCS encompasses about 1.76 billion acres, which includes the Gulf of Mexico (GOM) OCS where more operations-related activity occurs than in any other region in the world. About 25 percent of the oil and gas produced in the United States comes from the GOM OCS.

Activity in the GOM continues to grow at an astonishing rate. According to the recently published OCS Report MMS 2002-021 entitled *Deepwater Gulf of Mexico 2002: America's Expanding Frontier*, the last few years have chronicled the emergence of massive exploration and development in the GOM. A certain level of maturity has now been reached and the deepwater GOM is an expanding frontier. Many different types of production system technologies are now in use, with a strong reliance on subsea tiebacks. To date, there are 38 subsea projects now producing throughout the GOM, including more than 200 wells. With a reliance on subsea production technology and a growth of the pipeline infrastructure, operators have established numerous production hubs to support the expanding frontier. Using new technology and procedures, companies are actively pursuing exploration and development activities in unprecedented water depths.

Through a comprehensive regulatory program that includes facility inspections, incident investigations, and enforcement actions, the MMS closely monitors and analyzes all reported incident-related data. Regulations currently require operators to notify MMS of accidents, deaths or serious injuries, and all fires, explosions, and losses of well control associated with operations on a lease.

**OCS Events Reported to MMS:
1995-2001**



OCS Incident Statistics: 1995-2001

This factsheet focuses on collisions, explosions, fatalities, and losses of well control because these incidents tend to have more serious consequences.

COLLISIONS: Seventeen collisions occurred during calendar year 2001. Most of the 62 collisions reported to MMS between 1995 and 2001 (see graph on next page) involved a marine vessel striking an OCS facility. The number of collisions has shown an overall increase over the past seven years. In December 1998, MMS and the U.S. Coast Guard signed a Memorandum of Understanding that provides for continued close coordination between the two agencies in working to reduce these incidents.

EXPLOSIONS: From 1995-2001, 32 explosions were reported to MMS (see graph on next page). Well over half of these (65%) occurred during production operations. Equipment failure caused about 46 percent of the explosions, human error contributed to about 38 percent of the explosions, and the remainder resulted from other causes,

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including weather and one collision. About half of explosions (17 out of 32) resulted in a fire. Of the explosions that did not involve a fire, 10 resulted in damage of less than \$25,000, 4 resulted in damage of greater than \$25,000, and one had damage of more than \$1 million. Over the past seven years there has been an overall decrease in the number of explosions.

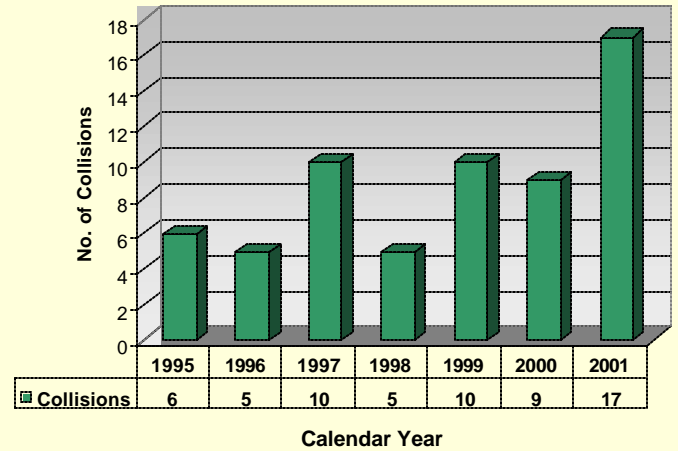
FATALITIES: Fifty-four events resulting in 60 fatalities were reported to MMS during the period covering 1995-2001. There has been a general decline in the number of fatalities since 1998 (see graph at bottom right). Well over half of the fatalities that occurred from 1995 through 2001 were the result of individuals falling or being struck by moving or falling equipment.

Classifying the fatalities according to operation at the time of incident shows the following percentages:

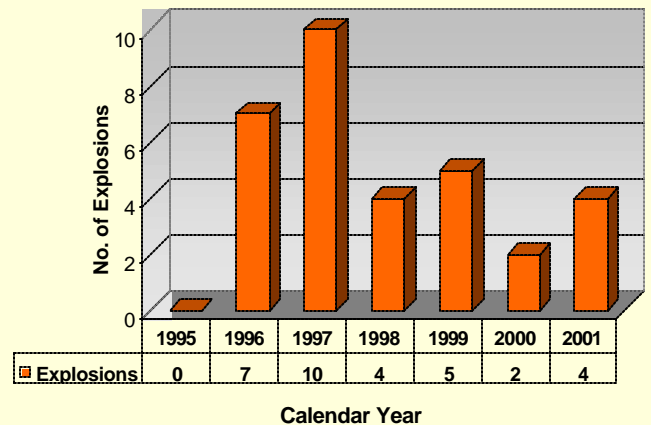
- Drilling/workover/completion...25% (15 fatalities)
- Construction and maintenance...22% (13 fatalities)
- Crane or lifting-related...20% (12 fatalities)
- Production...12% (7 fatalities)
- Motor vessel-related...6.5% (4 fatalities)
- Helicopter-related...6.5% (4 fatalities)
- Diving-related...5% (3 fatalities)
- Plug and abandonment...1.5% (1 fatality)
- Evacuation...1.5% (1 fatality)

LOSSES OF WELL CONTROL: Since 1995, there have been 40 losses of well control reported to MMS (see graph on next page). About two-thirds of these occurred during development drilling and resulted from a variety of causes including equipment failure, human error, and cementing problems. Although the number of loss of well control incidents has shown a gradual increase over the past seven years, these incidents typically were of short duration, lasting less than a day. In 2001, there were 9 losses of well control: one workover-related and eight drilling-related. Of the eight drilling-

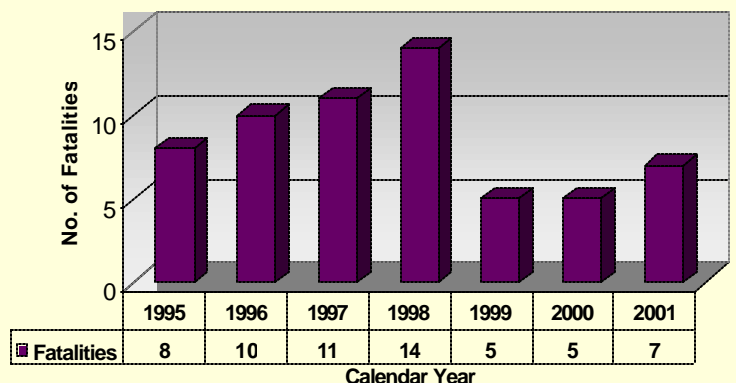
**OCS Collisions Reported to MMS:
1995-2001**



OCS Explosions Reported to MMS: 1995-2001



**OCS Fatalities Reported to MMS:
1995-2001**



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related losses of well control, one involved a riser disconnect, six involved cementing operations, and one resulted when the rig experienced a kick.

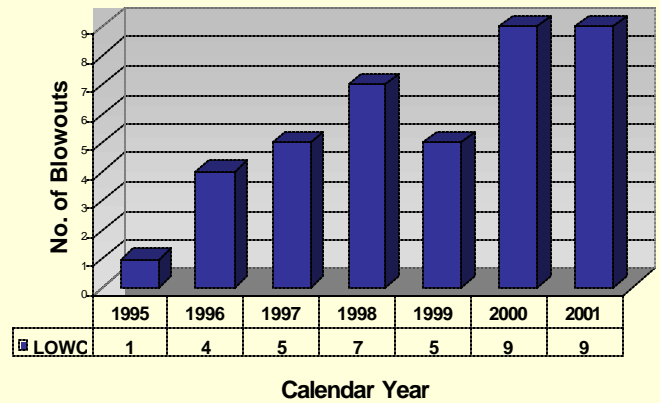
Overall Perspective of OCS Safety: 1968-2001

Examination of long-term incident trends since 1968 indicates that OCS operations are generally safer now than in the past. This is demonstrated by the two graphs at the lower right which show the trend in the number of fatalities and loss of well control incidents since 1968. The overall trend in fatalities shows a significant downward trend since 1968. Also, the trend in the number of drilling blowouts since 1968 shows a gradual decline even though the trend in the number of wells spudded shows an increase over the same time period.

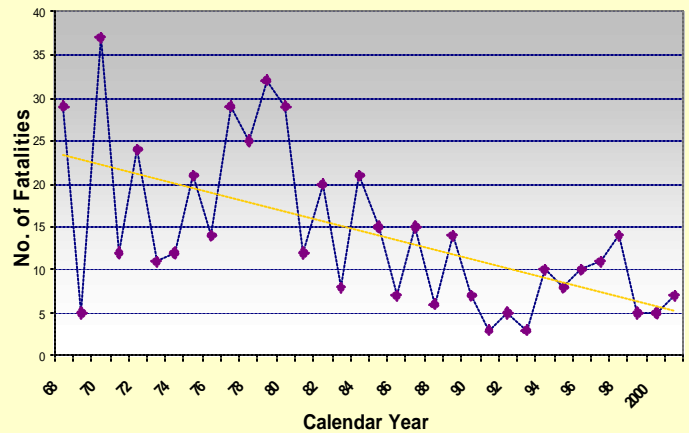
Inspection & Enforcement Program

Onsite facility inspections and enforcement actions are important components of MMS's safety program. During an inspection, MMS inspectors may issue an Incident of Non-Compliance (INC) for violation of safety and environmental protection regulations. Depending on the seriousness of the violation, MMS may issue a warning (least serious), order the shut-in of a component, or order the shut-in of the entire facility (most serious). One of the more serious types of INC's issued is for locking out or bypassing safety devices under conditions other than startup, testing, or maintenance. This situation is of particular concern to MMS because it renders a safety device inoperative. The graph at the top of the next page shows that enforcement actions for the past 7 years were primarily component shut-ins and warnings. The two graphs on the lower left of the next page show the total number of INC's issued each year during the past seven years and the number of INC's issued each year for bypassed safety devices during the same time period.

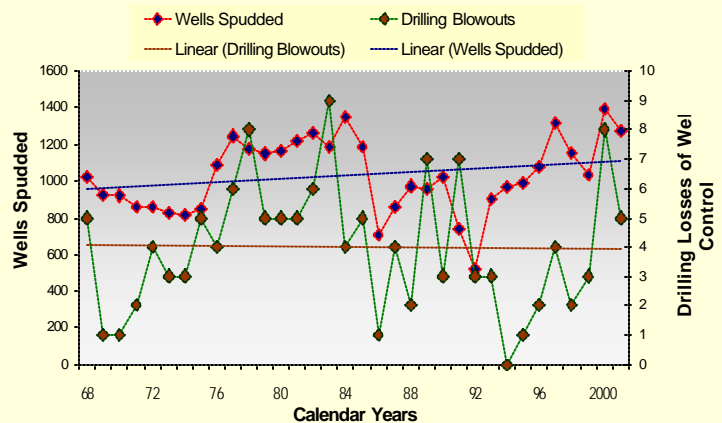
OCS Losses of Well (LOWC) Reported to MMS: 1995-2001



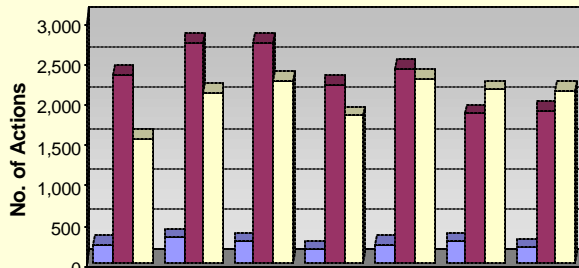
OCS Fatalities Reported to MMS: 1968-2001



OCS Wells Spudded vs. Drilling Losses of Well Control: 1968-2001



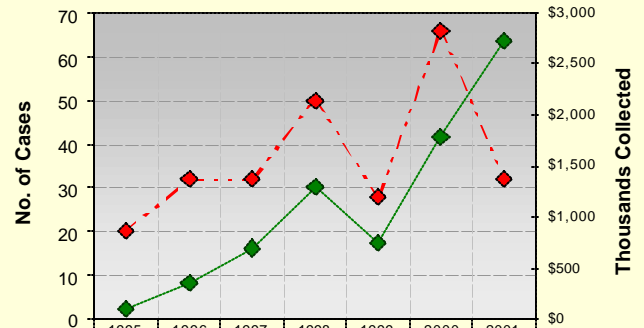
MMS Inspection Enforcement Actions: 1995-2001



	1995	1996	1997	1998	1999	2000	2001
Facility Shut-In	221	314	261	172	217	259	186
Component Shut-In	2,336	2,722	2,719	2,192	2,402	1,846	1,891
Warning	1,525	2,102	2,255	1,819	2,282	2,137	2,118

Calendar Year

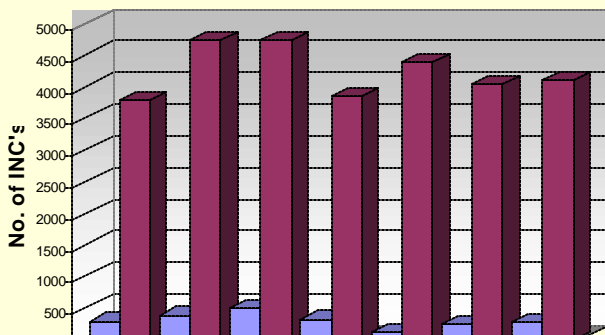
Civil Penalties MMS Collected from OCS Operators : 1995-2001



	1995	1996	1997	1998	1999	2000	2001
Cases	20	32	32	50	28	66	32
\$1,000's Collected	104	358	694	1,297	749	1,781	2,725

Calendar Year

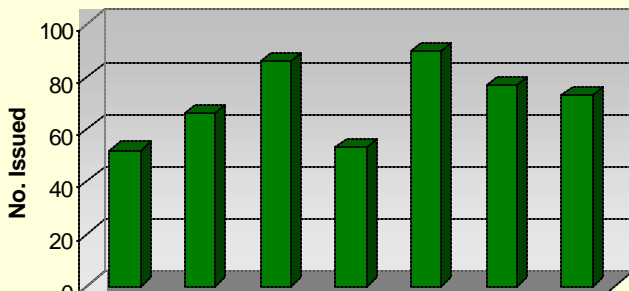
MMS INC's Issued: 1995-2001



	1995	1996	1997	1998	1999	2000	2001
Rig	296	391	497	330	120	261	270
Platform	3,786	4,747	4,738	3,853	4,396	4,039	4,103

Calendar Year

INC's MMS Issued for Bypassed Safety Device: 1995-2001



	1995	1996	1997	1998	1999	2000	2001
Bypass INC's	52	66	86	53	90	77	73

Calendar Year

CIVIL PENALTIES: MMS has authority to issue and collect fines through the agency's Civil Penalties Program. Since 1995, MMS has collected almost \$8 million in civil penalties from 260 U.S. OCS civil penalty cases (see graph above). For more information about OCS civil penalties, visit MMS's website at <http://www.mms.gov/civilpenalties>.

MONITORING SAFETY PERFORMANCE: In addition to periodic facility inspections, MMS monitors the safety performance of individual companies through incident investigations and annual company performance reviews. Also, some companies voluntarily share performance data with MMS through cooperative programs such as the OCS Performance Measures Program. This program uses a suite of consensus formulas to calculate 20 annual OCS-wide performance indices. These indices provide the public with information about performance trends and allow OCS lease operators to compare their performance with industry averages. For more information about OCS Performance Measures and OCS-Related Incidents, please see the MMS websites at:

<http://www.mms.gov/perfmeas/index.htm> and <http://www.mms.gov/stats/OCSincident.htm>, respectively.