

GEOSCIENCE R&D

PAYS OFF

BASIC GEOLOGIC MAPPING AND SEISMIC ANALYSIS UNCOVERS FAULTS. THIS ALLOWS GEOTECHNICAL ENGINEERS TO COME UP WITH INNOVATIVE DESIGNS TO COPE WITH POTENTIAL MOVEMENT. SUCH R&D PAID OFF WHEN THE TRANS ALASKA PIPELINE DID NOT BREAK BUT RATHER BENT AND SLID IN RESPONSE TO GROUND MOVEMENT CAUSED BY THE 2002 DENALI FAULT EARTHQUAKE.



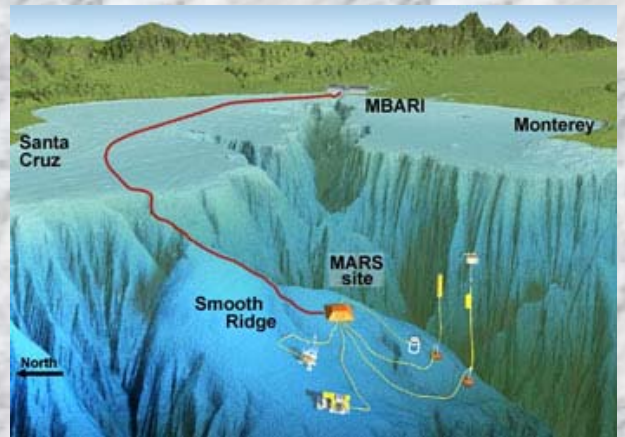
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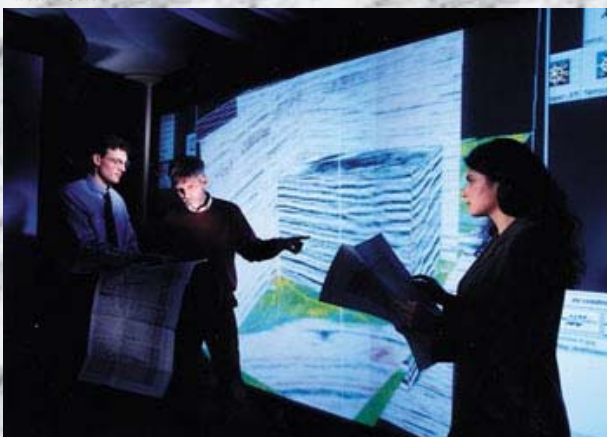
GEOCHEMISTS ARE GROWING LARGE, HIGH-QUALITY DIAMONDS WITH THE PROSPECT OF WIDESPREAD APPLICATIONS IN EVERYTHING FROM CUTTING TOOLS TO ELECTRONICS.

THE FIRST DEEP-SEA OBSERVATORY IN THE U.S., THE MONTEREY ACCELERATED RESEARCH SYSTEM (MARS), INVOLVES INNOVATIVE HARDWARE AND SOFTWARE DESIGN AND WILL YIELD UNIQUE INFORMATION ABOUT OUR CHANGING SEAFLOOR, OCEAN CURRENTS, AND SEA LIFE.



David Fierstein, MBARI

WesternGeco



IMAGING ALGORITHMS DEVELOPED BY GEOPHYSICISTS ARE BEING USED TO LOCATE DEEP OFFSHORE OIL AND GAS RESERVOIRS.

SUPPORT GEOSCIENCE R&D

NATIONAL SCIENCE FOUNDATION: SUPPORT A DOUBLING OF NSF'S BUDGET OVER 5 TO 10 YEARS THROUGH COMPETITIVENESS INITIATIVES FOR THE PHYSICAL SCIENCES, INCLUDING THE GEOSCIENCES AND POLAR PROGRAM DIRECTORATES.

UNITED STATES GEOLOGICAL SURVEY (USGS): SUPPORT A USGS BUDGET OF \$1.3 BILLION IN FY2009. THE USGS COALITION AND OTHER STAKEHOLDERS SUPPORT SUCH A MODEST INCREASE. THE USGS PROVIDES CRITICAL INFORMATION ABOUT NATURAL RESOURCES AND NATURAL HAZARDS. BUDGET REDUCTIONS HAVE HINDERED THE SURVEY'S CORE MISSION.

SUPPORT FULL FUNDING FOR THE MINERAL RESOURCES PROGRAM AND WATER RESOURCE PROGRAMS WITHIN THE USGS. THESE PROGRAMS HAVE BEEN SINGLED OUT FOR CUTS IN BUDGET REQUESTS IN RECENT YEARS.

DEPARTMENT OF ENERGY (DOE): SUPPORT A DOUBLING OF THE OFFICE OF SCIENCE BUDGET OVER 5 TO 10 YEARS THROUGH COMPETITIVENESS INITIATIVES FOR THE PHYSICAL SCIENCES, INCLUDING GEOSCIENCES AND CLIMATE CHANGE. THE OFFICE OF SCIENCE IS THE SINGLE LARGEST SUPPORTER OF BASIC RESEARCH IN THE PHYSICAL SCIENCES.

SUPPORT FUNDING FOR FOSSIL FUEL ENERGY, ALTERNATIVE ENERGY AND CARBON CAPTURE AND STORAGE R&D IN OTHER DOE OFFICES. THESE PROGRAMS HAVE RECEIVED FLUCTUATING FUNDING MAKING IT DIFFICULT TO MAKE PROGRESS IN KEY AREAS OF R&D. FURTHER INNOVATION IN ENERGY RESOURCES AND CLIMATE CHANGE MITIGATION IS ESSENTIAL TO OUR ECONOMY, SECURITY AND ENVIRONMENT.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA): RETURN SPENDING LEVELS TO FY2000 LEVELS (ELIMINATING A 30% CUT OVER A SIX YEAR PERIOD) AND IMPLEMENT THE PRIORITIES OF THE NATIONAL ACADEMIES *EARTH SCIENCE AND APPLICATIONS FROM SPACE DECADAL SURVEY*.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA): CODIFY THE ESTABLISHMENT AND PURPOSE OF NOAA TO ENSURE STRONG R&D OF THE ATMOSPHERE AND OCEANS. NOAA WAS STARTED BY EXECUTIVE ORDER IN 1970 BUT DOES NOT HAVE A STATUTORY BASIS FOR ITS EXISTENCE. THE U.S. COMMISSION ON OCEAN POLICY AND OTHER STAKEHOLDERS RECOMMEND AN ORGANIC ACT FOR NOAA.

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY (NIST): SUPPORT FUNDING FOR THE NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM (NEHRP). NIST SUPPORTS EARTH SCIENCE THROUGH LEADERSHIP OF THE NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM (NEHRP) IN COOPERATION WITH THE USGS, NSF AND FEMA.

STEADY FEDERAL INVESTMENTS IN EARTH AND SPACE SCIENCE R&D WILL KEEP THE U.S. COMPETITIVE IN THE GLOBAL MARKET PLACE, PROVIDE FOR STABLE ENERGY RESOURCES, HELP US SUSTAIN AND MAINTAIN THE ENVIRONMENT AND HELP SUPPLY THE SKILLED WORKFORCE, TRAINED TEACHERS AND PROFESSORS TO SUSTAIN THE NATION AND EDUCATE THE NEXT GENERATION OF EARTH AND SPACE SCIENTISTS.