Transportation 1860-2005



1963 Clean Air Act

Congress sets air pollution emission standards for stationary sources such as power plants and steel mills. Mobile sources of air pollution which had become the largest source of many dangerous pollutants were addressed in a 1970 amendment to the act that set standards for auto emissions, and authorized research on low emissions fuels and automobiles.

1970

Rail Passenger Service Act

Congress creates Amtrak in an effort to relieve railroads of the burdens of passenger traffic. For the first time, the U.S. government will provide direct financial assistance to the rail passenger service.

1970s

Affordable Solar Cell

Who: Elliot Berman (Inventor) and Exxon Corp (Funding)

Where: USA

What: A practical, affordable solar cell with a wide-range of transport applications



Image Source: California Solar Center

The use of solar cells in space flourished during the 1960s and early 1970s—size, efficiency and durability not cost wasn't a big concern. On earth the story was different with the primary criteria for a solar cell being price per kilowatt hour. In the early 1970s, Dr. Elliot Berman, with financial help from Exxon Corporation, designed a less costly solar cell by using a poorer grade of silicon and packaging the cells with cheaper materials. The price per watt dropped from \$100 to \$20. Solar cells could provide energy where people were distant from power lines such as off-shore oil rigs like the one pictured here. The rigs needed warning lights and horns to prevent ships from running into them but had no power other than toxic, cumbersome, short-lived batteries. Solar cells were a bargain. The purchases of solar modules by the gas and oil industry helped the solar cell industry get the needed capital to survive. Another early application of solar cells was use at isolated lighthouses and rail crossings.

1973

OPEC Oil Embargo

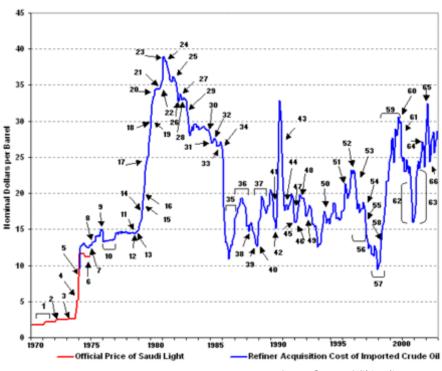


Image Source: Wikipedia.com

In 1960, Iran, Iraq, Kuwait, Saudi Arabia, and Venezuela formed OPEC, the Organization of Petroleum Exporting Countries, to "coordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry." OPEC carries out this objective by attempting to control the output of its member countries. Angry that U.S. and its allies in Western Europe had supported Israel in its conflict with Syria and Egypt during the 1973 Yom Kippur War, OPEC along with Syria and Egypt announced it would no longer ship petroleum to the Israeli supporters. The oil embargo caused major disruptions of the worldwide oil supply. The U.S. and other nations realize the need to explore alternative energy sources that reduce their dependency on oil.

2005

Giant Plane Comparison

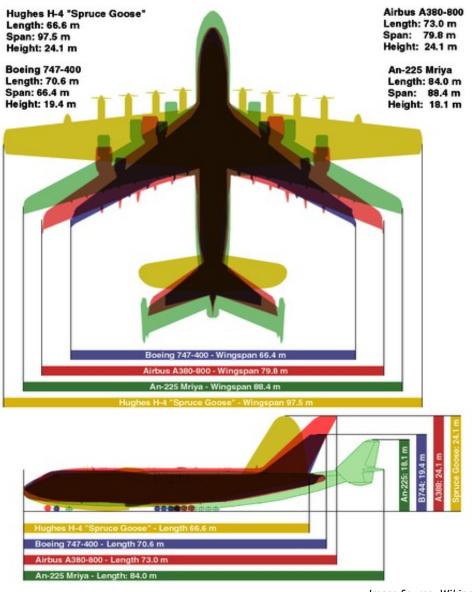


Image Source: Wikipedia