

**STATEMENT OF**  
**JOHN COOK**  
**DIRECTOR, PETROLEUM DIVISION**  
**ENERGY INFORMATION ADMINISTRATION**  
**BEFORE THE**  
**SUBCOMMITTEE ON ENERGY AND POWER**  
**COMMITTEE ON COMMERCE**  
**U.S. HOUSE OF REPRESENTATIVES**  
**MARCH 9, 2000**

**Summary**

World crude oil and petroleum product prices have risen rapidly over the past twelve months, from about \$12 per barrel in February to touch \$34 this week. While \$34 adjusted for inflation is still less than the \$70 per barrel seen in 1981, the extreme price volatility over the last year has created market dislocations. The recent price rise is the result of a shift in the world balance between production and demand. Over the last year, as OPEC and several other exporting countries cut output, world oil demand exceeded production, and inventories were used to meet demand growth. World inventories of crude oil and products are now at low levels, and continue to fall.

Low inventories leave little cushion to meet sudden increases in demand or decreases in supply, increasing the possibility of price runups. In particular, U.S. Northeast heating oil and diesel prices surged in January 2000, when cold weather and supply problems occurred in the region on top of low stocks. With little distillate stock cushion, local supplies were diminished, and prices spiked. Large volumes of distillate imports, warm weather, and increases in production have since resolved this supply shortage in the Northeast.

We are now facing a very tight gasoline market. U.S. crude oil and gasoline inventories are at alarmingly low levels not seen for decades. On top of low stocks, refineries need to increase crude inputs over 1 million barrels per day during March and April, within a market short on crude oil -- creating an environment ripe for gasoline price volatility this spring. But even after we get through the spring, expected high refinery utilization rates on top of precariously low gasoline stocks set the stage for volatility during the summer as well.

## **Increases in Crude Oil, Distillate Fuels and Gasoline Prices**

I wish to thank the Committee for the opportunity to testify on behalf of Jay Hakes, Administrator of the Energy Information Administration, who regrets that he was unable to be here. I will focus on the status of the global crude oil market and its effects on the heating oil, diesel fuel, and gasoline markets and prices. As I will illustrate, world demand exceeded crude oil production in 1999, largely as a result of the decline in production by the Organization of Petroleum Exporting Countries (OPEC) and several other exporting countries. Inventories were used to meet the excess demand, and prices rose in response. Today, world inventory levels are very low, leaving markets vulnerable to price spikes, such as that just experienced for heating oil and diesel fuel in the Northeast.

### ***U.S. Dependence on Petroleum***

Today, the United States is still heavily dependent on crude oil, in spite of the growth in use of other fuels like natural gas and coal. In 1998, petroleum supplied 39% of our energy needs. Since 1985, domestic crude oil production has been declining while oil product consumption has been increasing, resulting in a growing reliance on imports. In 1974, net imports of crude oil and products supplied about 35 percent of U.S. consumption. In 1998, net imports supplied about 52% of U.S. petroleum consumption, the highest percentage ever. However, this dependence is offset, to some extent, by an ongoing decline in petroleum's role in the economy. Over the last 20 years, spending on petroleum has dropped from about 8 percent of all spending on U.S. goods and services to about 3 percent.

### ***Crude Oil Market and Recent Price Increases***

Crude prices have changed significantly over the past year. Prices have risen more than \$20 per barrel (48 cents per gallon) from under \$12 per barrel in mid February 1999 -- the lowest prices in nominal terms since 1986 -- to \$34 per barrel recently. To put this in perspective, while this represents the highest price since the Persian Gulf War, crude oil prices peaked in 1981 at \$70 per barrel in today's dollars (\$39 per barrel in nominal terms). Recent EIA forecasts show that these high prices have resulted in a decline in OPEC's market share of over 1% from fourth quarter 1999. Non-OPEC production in the fourth quarter was higher than expected, indicating higher oil prices may be stimulating more non-OPEC production than many analysts predicted.

Nevertheless, crude oil markets tightened in 1999 as OPEC and several other exporting countries reduced supply, and, at the same time, recovery of Asian economies increased demand growth. In 1999, world oil demand exceeded production by over 1 million barrels per day for the year, reducing world inventories by nearly 400 million barrels. If OPEC were to keep production in the year 2000 at the levels seen in the first quarter, EIA estimates the shortfall in 2000 could be up to 2 million barrels per day. Should such production levels be sustained, the resulting higher prices would have adverse impacts on inflation and economic growth.

During 1999, crude oil prices rose faster than product prices, reducing refining margins. The squeeze on margins, on top of high crude oil prices, encouraged refiners to constrain crude oil purchases, restrict product output, and draw down inventory. By the end of 1999, world crude oil and product stocks sank to very low levels, and U.S. inventories were no exception. For example, as shown in Figure 1, East Coast distillate inventories, which were ample at the start of the winter season, fell well below normal levels by

year end, setting the stage for the heating oil price spike experienced in recent weeks.

### ***Heating Oil Price Spike***

Retail heating oil and diesel fuel prices (distillate prices) climbed steadily from early 1999 through the middle of January 2000, largely as a result of increases in crude oil prices. But distillate prices in the Northeast turned sharply upward in the third week of January. In a three-week period, New England residential heating oil prices, as shown in Figure 2, rose 78 cents (66 percent) to \$1.96 per gallon. During the same three-week period, New England retail diesel fuel prices (Figure 3) rose 68 cents per gallon (47 percent), to peak at \$2.12 per gallon. While Northeast prices surged further at the end of January, heating oil and distillate product prices in other parts of the country rose relatively little.

Fortunately, prices peaked in early February, and are now dropping. By February 28, New England residential heating oil prices had fallen 60 cents and retail diesel fuel 48 cents per gallon from their peaks.

Retail heating oil and diesel fuel prices follow the spot distillate markets, which had been driven by crude oil prices until recently. Figure 4 shows that spot crude oil prices for West Texas Intermediate (WTI) changed relatively little, even as No. 2 heating oil spot prices in the Northeast spiked dramatically. New York Harbor spot heating oil prices rose from about 76 cents per gallon on January 14 to peak at \$1.77 February 4 before falling back. Gulf Coast prices did not spike, but were probably pulled slightly higher as the New York Harbor market began to draw on product from other areas, again indicating the Northeast focus of this problem.

The late-January heating oil and diesel fuel price surges in the Northeast resulted from a unique combination of low inventories, weather, and supply problems. Low stocks leave little cushion to absorb sudden changes in supply or demand. Distillate stocks fell rapidly in late November through December as high crude oil prices and margin pressure discouraged production. By the beginning of January, East Coast inventories were running almost 4 million barrels, or 8 percent, below the low end of the normal range.

During the last half of January, cold weather in the Northeast not only increased demand, but also caused supply problems, with frozen rivers and high winds hindering the arrival of new supply. It was reported that utilities were buying distillate both for peaking power and, along with industrial and commercial users, to substitute for interruptible natural gas supplies, further adding to the market pressure.

Thus, with new supply being delayed and little inventory to cover the increased demand, prices spiked. Within weeks, a flood of imports attracted by the higher prices, along with domestic resupply, stopped the inventory decline, and prices dropped substantially. Although stocks remain low, with currently mild weather and only a few weeks of the traditional heating season remaining, a surge like that seen in late January is unlikely.

### ***Upcoming Gasoline Season***

I would like to conclude my testimony by focusing on the outlook for gasoline. The tight crude oil market is also affecting the gasoline market. U.S. gasoline prices averaged \$1.50 this past Monday, an increase of 23 cents per gallon since the beginning of this year. Today, both U.S. crude oil and gasoline

stocks are at alarmingly low levels (Figure 5) -- levels not seen for decades. The same squeeze on margins that brought distillate stocks down to low levels also reduced gasoline stocks.

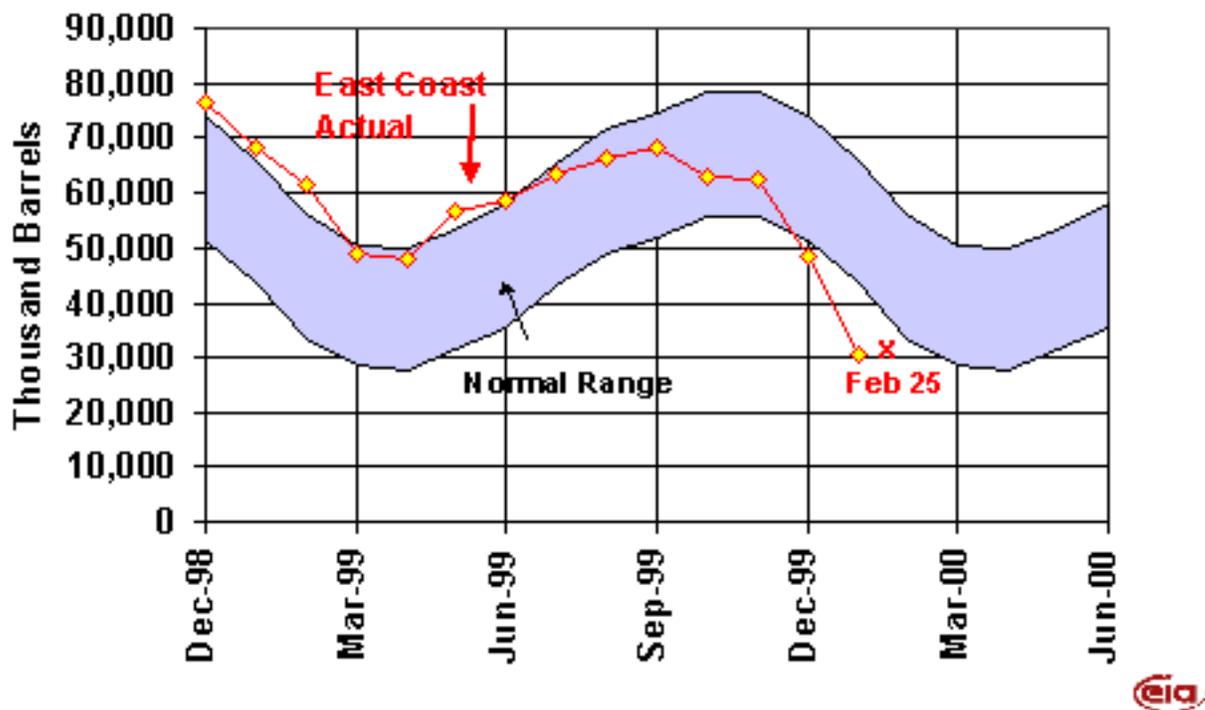
I would like you to focus on two time periods -- spring and summer. During March and April, refineries need to increase crude oil inputs by over 1 million barrels per day (Figure 6). With low stocks and a market short on crude oil, the situation is ripe for gasoline price volatility. Spot gasoline prices are already reflecting the tight gasoline supply-demand balance. Last week, spot gasoline prices on the Gulf Coast averaged almost 20 cents per gallon higher than crude oil prices -- a spread that is about 2 times the average spread this time of year.

But even after we get through the spring, we may see price volatility this summer as well. EIA expects to see high refinery utilization rates on top of precariously low gasoline stocks. This combination leaves little room for the unexpected. Unplanned refinery outages, import delays or demand increases can create price surges above levels shown in the EIA forecast. EIA is currently projecting regular gasoline prices to peak at \$1.56 per gallon this summer. Price volatility can result in a 20-25 cent per gallon price surge such as those seen in California historically, which brings the price to \$1.80 for a time. Although these prices are far from record highs in real terms, they have risen rapidly over a short period of time, attracting a great deal of consumer attention.

This concludes my testimony. I would be glad to answer any questions that you might have.

**Figure 1**

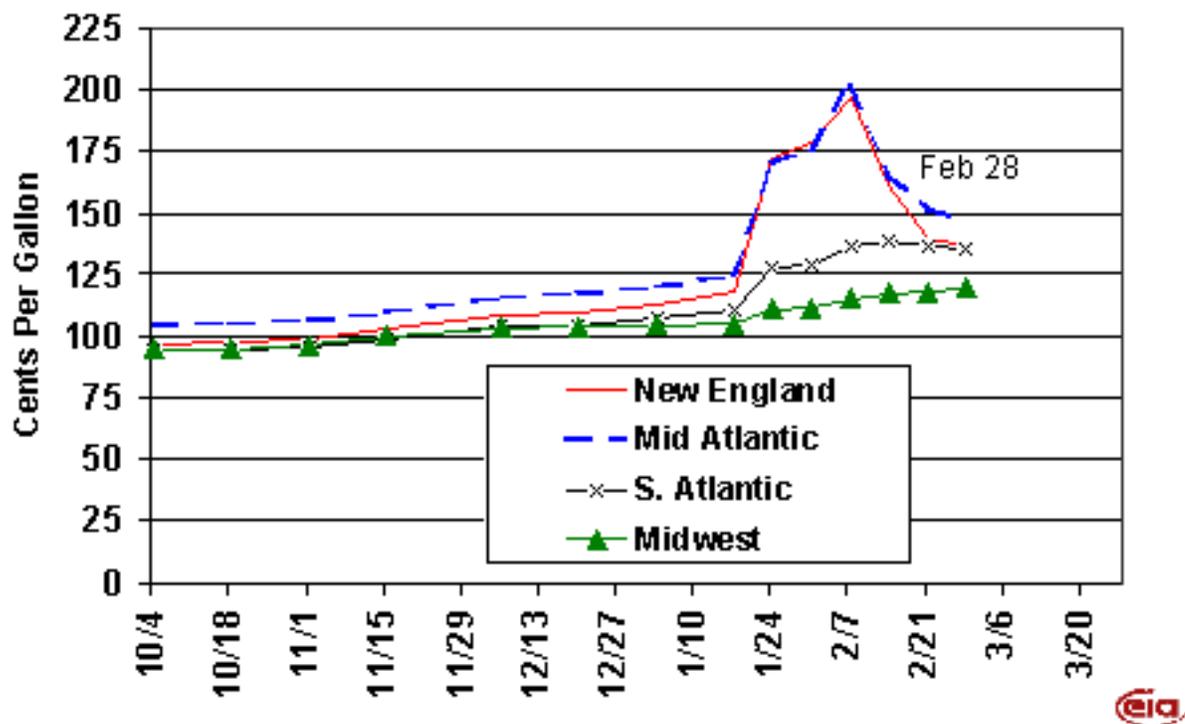
## East Coast Total Distillate Stocks



Source: Energy Information Administration

Figure 2

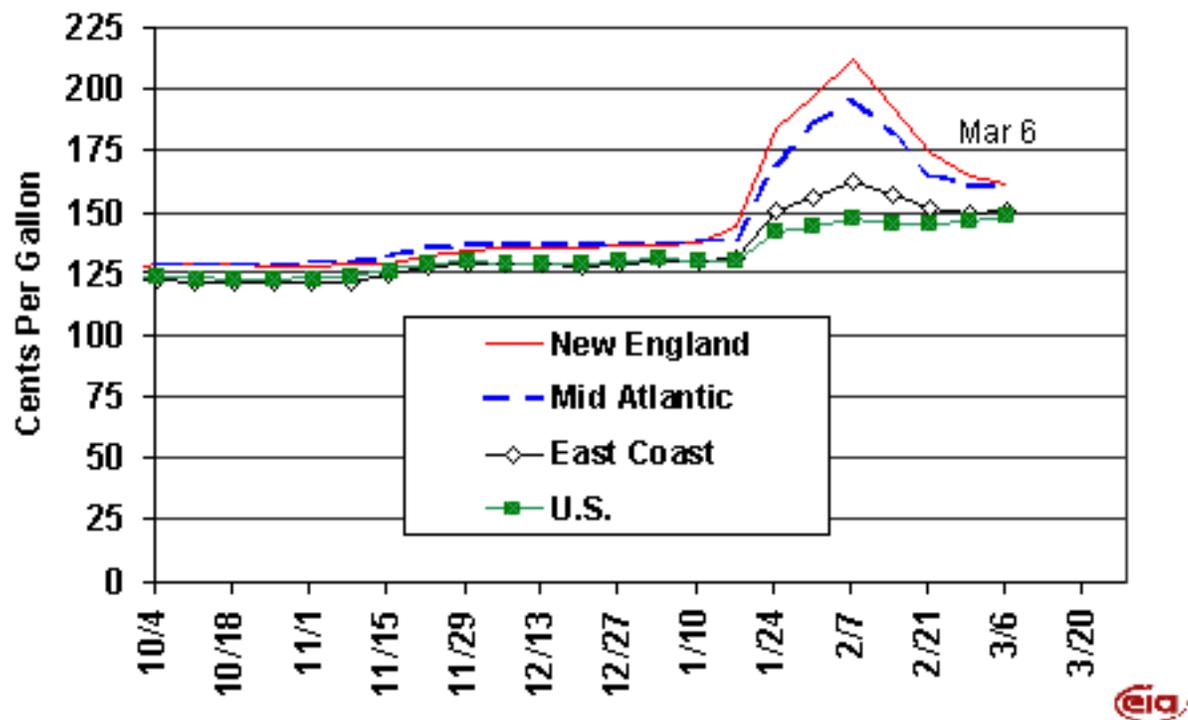
## Regional Residential Heating Oil Prices



Source: Energy Information Administration/State Energy Office Data

Figure 3

## Retail Diesel Fuel Oil Prices

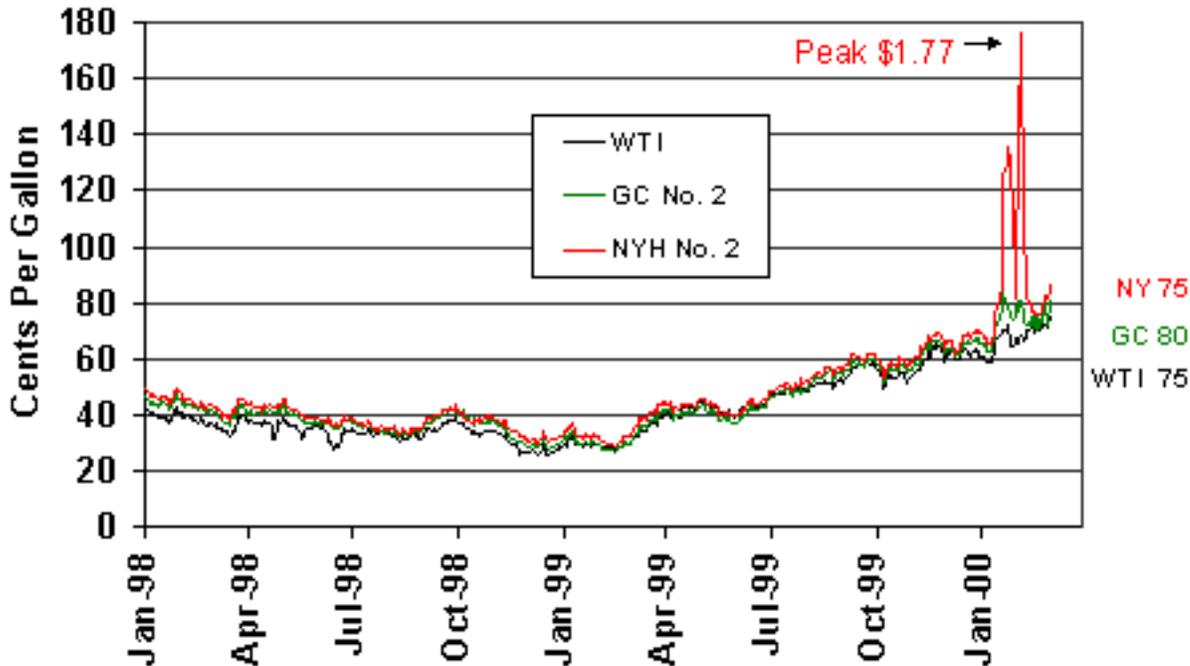


Source: Energy Information Administration

Figure 4

# Spot Distillate & Crude Oil Prices

(Prices through March 3, 2000)

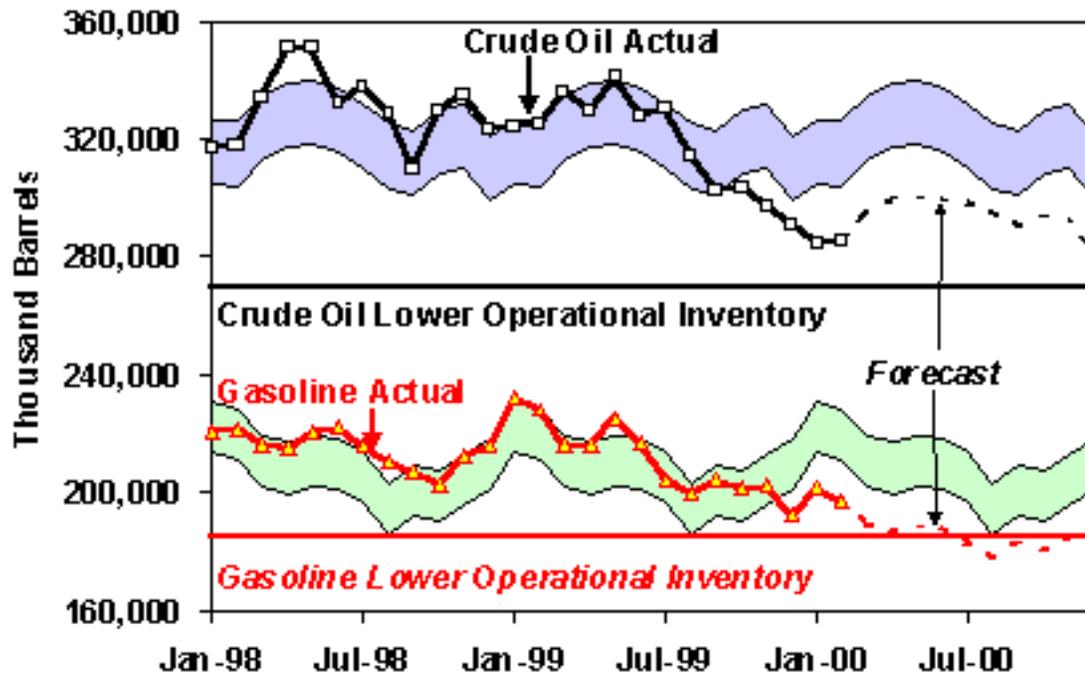


Source: Reuters Daily Spot Prices.

Note: WTI -- West Texas Intermediate crude oil price; GC No. 2 -- Gulf Coast No. 2 heating oil; NYH No. 2 -- New York Harbor No. 2 heating oil prices.

Figure 5

# U.S. Crude Oil & Gasoline Stocks at Historic Lows



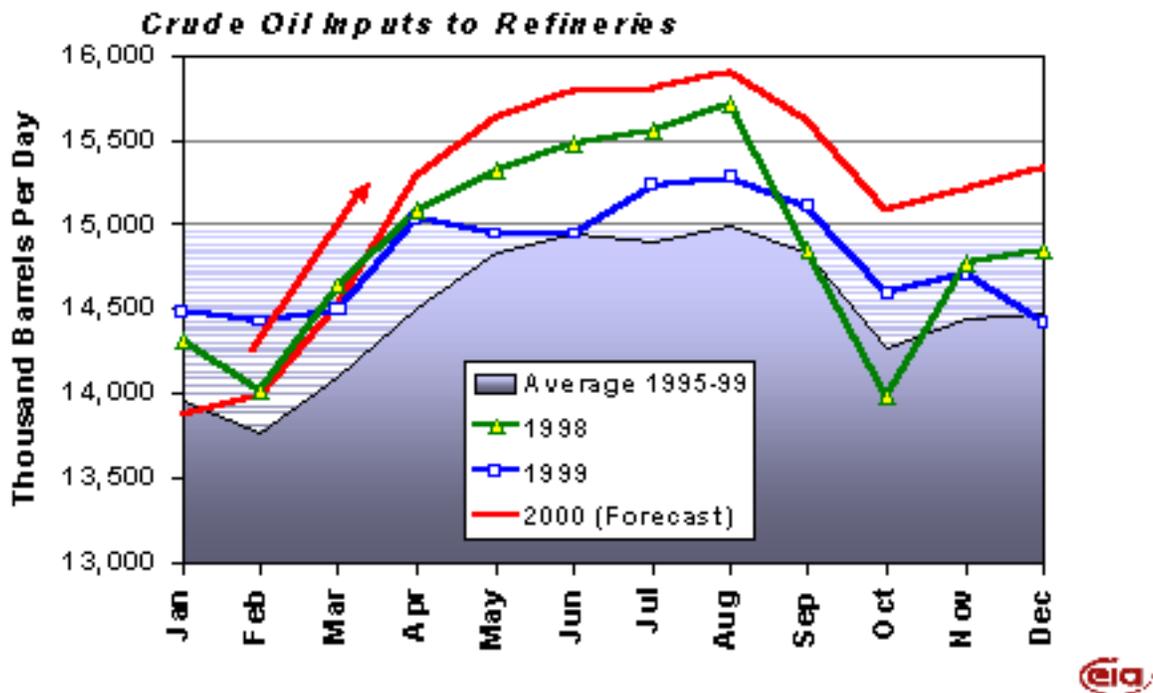
**NOTE: Colored Bands are Normal Stock Ranges**



Source: Energy Information Administration

Figure 6

# U.S. Needs Record Refinery Crude Input Increase Now



Source: Energy Information Administration