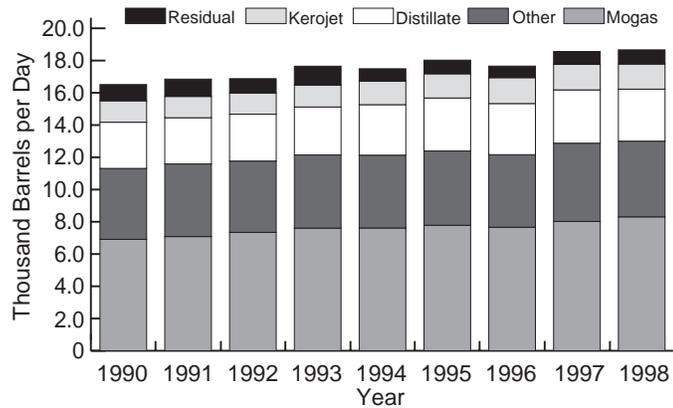


Highlights

Total demand for refined petroleum products in September 1998¹ (measured as products supplied) averaged 18.7 million barrels per day, setting a new record for the month (Table & Figure H1). During the first 9 months of this year total demand for refined petroleum products has averaged 18.6 million barrels per day, close to the record set back in 1978.

Figure H1. Total Demand, 1990-Current, Comparison in September for Products



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

The Federal Reserve cut short-term interest rates at their September meeting in a preemptive move as growing concerns about the global economic slowdown have policy makers concerned about the effect on the U.S. economy. In a recent speech by Federal Reserve Governor Laurence Meyer, he pointed out that the domestic economy was still moving forward at a high level and that the Federal Reserve would work to sustain domestic growth.² Data collected during September by the National Oceanic and Atmospheric Administration reveals that it was an usually hot month as temperatures averaged 35 percent warmer than normal and 33 percent warmer than this time last year.³ As the hurricane season got underway, the Gulf Coast was affected by tropical storms that shut in some production, caused problems with refinery operations and slowed down imports as some ships were unable to off load their cargos.

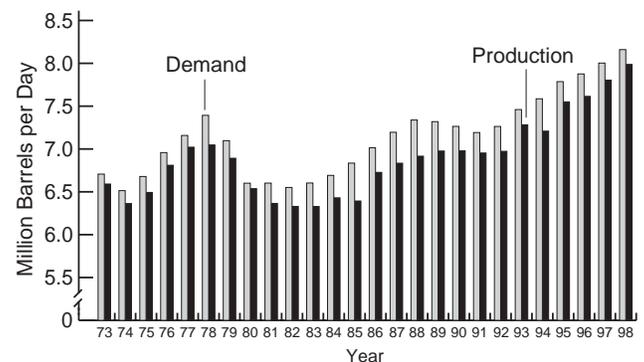
September 1998 and third quarter highlights include:

- Finished motor gasoline **demand** set a record high for the month, averaging 8.3 million barrels per day. January through September, demand is up almost 2 percent compared to last year's record for the same period (Figure H2). Since the beginning of the year, production has been at a record pace of 8.0 million barrels per day. **Stocks** of finished motor gasoline ended the month at 163.4 million barrels, more than 5.5 million barrels above last year's level.
- Distillate fuel oil **demand** averaged 3.2 million barrels per day, one the highest levels ever for the month. Demand for

distillate fuel oil since the beginning of the year has averaged 3.4 million barrels per day, a new record. **Production** of distillate fuel oil set a record high for the month at an average of 3.5 million barrels per day. Year-to-date production of distillate fuel oil is also at a record pace. Distillate fuel oil **stocks** ended the month totaling 152.2 million barrels, 13.5 million barrels above last year and the highest level for the month since 1986.

- Residual fuel oil **demand** reached the highest September level since 1993, averaging 878 thousand barrels per day. **Production** of residual fuel oil was also up for the month, averaging 737 thousand barrels per day. Year-to-date figures reflect increases for both demand and production of residual fuel oil. **Stocks** ended the month at 38.7 million barrels, the highest level for September since 1995.
- Kerosene-type jet fuel **demand** declined slightly from last September's level to an average of 1.6 million barrels per day. Kerosene-type jet fuel **production** was also below last September's level, averaging 1.5 million barrels per day. Both production and demand for kerosene-type jet fuel are down for the year. Kerosene-type jet fuel **stocks** ended the month totaling 44.4 million barrels.
- Propane inventories totaled 78.6 million barrels, the highest level to begin the heating season since 1986.
- Crude oil **production** remains similar to the levels in the 1950's, averaging only 6.3 million barrels per day. For the year, domestic production of crude oil is at it's lowest level since 1954. Alaskan field production dropped to 1.1 million barrels per day, the lowest level for the month in over 20 years. Crude oil **imports** averaged 8.4 million barrels per day, half a million barrels per day below the September 1997 record

Figure H2. Finished Motor Gasoline, Year-to-Date September Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

¹ September 1998 data are monthly-from-weekly estimates based on the Energy Information Administration's Weekly Petroleum Supply Reporting System.

² "Fed To Cushion Coming U.S. Slowdown-Meyer", *Reuters*, October 5, 1998, accessible via the Internet at <http://dailynews.yahoo.com/headlines/>.

³ "Cooling Degree Day Data Monthly Summary, Monthly Data for September 1998", *National Oceanic Atmospheric Administration*, accessible via the Internet at <http://nic.fb4.noaa.gov>.

Table H1. Petroleum Supply Summary
(Million Barrels per Day, Except Where Noted)

Category	1998			1997	January - September	
	Estimated September	August	Difference ^a	September	1998	1997
Products Supplied	18.7	19.1	-0.4	18.6	18.6	18.5
Finished Motor Gasoline.....	8.3	8.5	-0.2	8.0	8.2	8.0
Distillate Fuel Oil.....	3.2	3.4	-0.2	3.3	3.4	3.4
Residual Fuel Oil	0.9	0.8	(s)	0.8	0.8	0.8
Jet Fuel.....	1.6	1.5	(s)	1.6	1.5	1.6
Other Petroleum Products ^b	4.7	4.8	-0.1	4.9	4.6	4.7
Crude Oil Inputs	15.0	15.7	-0.7	15.3	15.0	14.6
Operating Utilization Rate (%)	96.0	100.7	-4.7	100.4	97.1	96.1
Imports	10.2	10.8	-0.6	10.5	10.4	10.2
Crude Oil	8.4	9.1	-0.8	8.8	8.6	8.2
Strategic Petroleum Reserve	0.0	0.0	0.0	0.0	0.0	0.0
Other.....	8.4	9.1	-0.8	8.8	8.6	8.2
Products	1.8	1.7	0.2	1.7	1.8	2.0
Finished Motor Gasoline.....	0.3	0.3	(s)	0.3	0.3	0.3
Distillate Fuel Oil.....	0.2	0.2	(s)	0.2	0.2	0.2
Residual Fuel Oil	0.2	0.2	(s)	0.1	0.2	0.2
Jet Fuel.....	0.1	0.1	(s)	0.1	0.1	0.1
Other Petroleum Products ^c	1.0	0.9	0.1	1.0	1.0	1.2
Exports	1.0	0.8	0.2	1.0	1.0	1.0
Crude Oil	0.1	0.1	0.1	0.1	0.1	0.1
Products	0.9	0.7	0.2	0.9	0.8	0.9
Total Net Imports	9.2	10.0	-0.8	9.5	9.4	9.2
Stock Change^d	-0.1	0.2	-0.3	0.7	0.4	0.3
Crude Oil	-0.3	-0.3	(s)	0.1	0.1	0.1
Products	0.3	0.5	-0.2	0.6	0.3	0.2
Total Stocks	1,654	1,672	-17	1,592	—	—
(million barrels)						
Crude Oil	885	894	-8	867	—	—
Strategic Petroleum Reserve.....	563	563	0	563	—	—
Other.....	322	330	-8	304	—	—
Products	769	778	-9	725	—	—
Finished Motor Gasoline.....	163	169	-5	158	—	—
Distillate Fuel Oil.....	152	150	2	139	—	—
Residual Fuel Oil	39	42	-3	35	—	—
Jet Fuel.....	44	47	-2	46	—	—
Other Petroleum Products ^c	370	371	(s)	348	—	—

^a Difference is equal to volume for current month minus volume for previous month.

^b Includes crude oil product supplied, natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and jet fuel.

^c Includes natural gas liquids, liquefied refinery gases (LRG's), other liquids, and all finished petroleum products except motor gasoline, jet fuel, distillate fuel oil, and residual fuel oil.

^d A negative number indicates a decrease in stocks and a positive number indicates an increase.

(s) = Less than 0.05 million barrels per day, or less than 0.05 percent, or less than 0.5 million barrels.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration (EIA), 1996, *Petroleum Supply Annual*, Volume II; appropriate issues of the *Petroleum Supply Monthly* and the *Weekly Petroleum Status Report*.

Data for the current month are preliminary estimates, based on weekly submissions. For an explanation of estimation methodology and accuracy, see Appendix A of *Weekly Petroleum Status Report* and the article, "Accuracy of Petroleum Supply Data", published in the December 1997, *Petroleum Supply Monthly*.

Table H2. U.S. Refinery Inputs, Capacities and Utilization Rates: 1997-1998
(Thousand Barrels per Day, Except Where Noted)

Item	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1997												
Gross Refinery Inputs	13,771	13,601	14,156	14,465	15,232	15,300	15,190	15,465	15,533	15,127	14,939	15,188
Operating Refinery Capacity ²	15,168	15,205	15,233	15,229	15,449	15,461	15,462	15,452	15,464	15,464	15,452	15,424
Idle Capacity ³	284	247	399	387	167	177	177	189	139	139	150	204
Idle Three Months or Less	197	160	220	180	0	10	10	22	12	12	12	66
Idle More than Three Months	87	87	179	207	167	167	167	167	127	127	139	139
Operable Refinery Capacity	15,452	15,452	15,632	15,616	15,616	15,638	15,639	15,641	15,602	15,602	15,602	15,628
Utilization Rate (percent)												
Operating Capacity	90.8	89.5	92.9	95.0	98.6	99.0	98.2	100.1	100.4	97.8	96.7	98.5
Operable Capacity	89.1	88.0	90.6	92.6	97.5	97.8	97.1	98.9	99.6	97.0	95.7	97.2
1998												
Gross Refinery Inputs	14,655	14,340	14,851	15,170	15,305	15,651	15,704	15,806				
Operating Refinery Capacity ²	15,538	15,555	15,547	15,587	15,617	15,687	15,695	15,689				
Idle Capacity ³	167	158	184	144	144	135	135	143				
Idle Three Months or Less	41	20	46	0	0	0	0	14				
Idle More than Three Months	127	138	138	144	144	135	135	129				
Operable Refinery Capacity	15,705	15,713	15,732	15,732	15,761	15,822	15,830	15,832				
Utilization Rate (percent)												
Operating Capacity	94.3	92.2	95.5	97.3	98.0	99.8	100.1	100.7				
Operable Capacity	93.3	91.3	94.4	96.4	97.1	98.9	99.2	99.8				

¹Capacities are on a calendar day basis.

²Operating capacity equals the operable capacity less the total idle capacity.

³Idle capacity is the component of operable capacity that is not in operation and not under active repair, but is capable of being placed in operation within 30 days; and capacity not in operation but is under active repair that can be completed within 90 days.

Note: Totals may not equal sum of components due to independent rounding.

Sources: Energy Information Administration (EIA), 1997, *Petroleum Supply Annual*, Volume 2, Table 16; EIA, *Petroleum Supply Monthly*, 1998 data issue, Table 28.

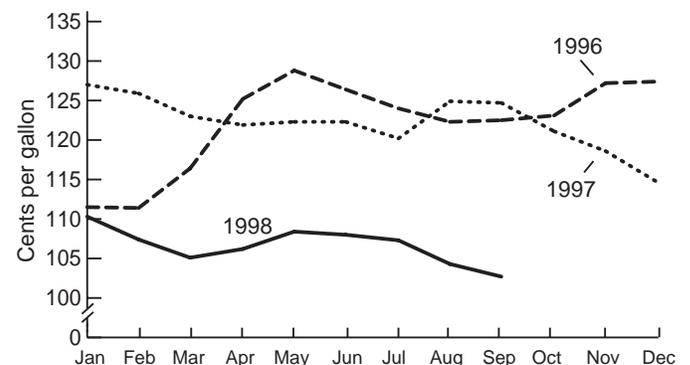
high for the month. Since the beginning of the year crude oil imports are averaging 8.6 million barrels per day, a new record. Crude oil **stocks**, excluding the Strategic Petroleum Reserve (SPR), ended the month at 321.8 million barrels.

Motor Gasoline

As the summer driving season came to an end, consumers were treated to the lowest prices yet this year for conventional motor gasoline. The retail price for conventional motor gasoline averaged \$1.027 a gallon (including taxes), 22 cents less than last September (Figure H3).⁴ Travel during the Labor Day weekend, traditionally viewed as the end of the summer driving season, was estimated to have increased 5 percent from last year as 33.1 million travelers took to the roads for the holiday weekend.⁵ Motor gasoline **demand** set a record high for the month, at an average of 8.3 million barrels per day. **Demand for the year is up nearly 2 percent** from the record set last year, averaging 8.2 million barrels per day. Due to refineries going into turnarounds, production of finished motor gasoline was down for the month.⁶ **Production** of finished motor gasoline averaged 8.1 million barrels per day, less than 80 thousand barrels per day below the September record.

Over the first nine months of the year, production of finished motor gasoline averaged 8.0 million barrels per day, a new record. **Imports** of finished motor gasoline were normal for this time of

Figure H3. Prices for Conventional Motor Gasoline (including taxes), 1996-current



Source: Energy Information Administration, *Weekly Petroleum Status Report*, DOE/EIA-0208 (various issues).

⁴ "Table 16. U.S. Retail Motor Gasoline and On-Highway Diesel Fuel Prices, 1997 to Present", *Weekly Petroleum Status Report*, September 25, 1998, p. 27.

⁵ "Falling Gasoline Prices Pump Up Holiday Demand", *Oxy-Fuels News Monthly Markets Update*, September 14, 1998, p. 1.

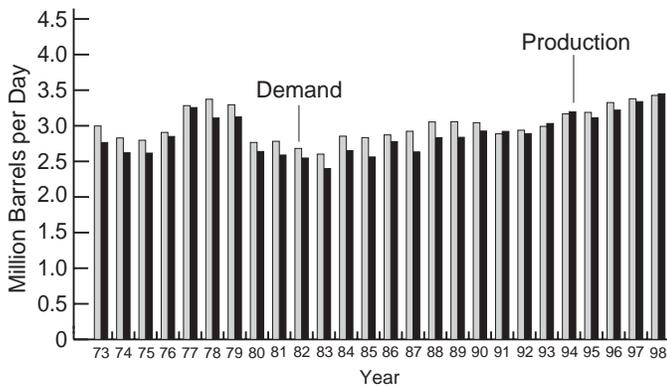
⁶ "Gasoline Supply Barometer", *Oil Express*, September 28, 1998, p. 2.

year averaging 321 thousand barrels per day. Imports of finished motor gasoline this year have averaged 301 thousand barrels per day, down from last year's level. Finished motor gasoline **stocks** ended the month 5.5 million barrels above last September's level, totaling 163.4 million barrels.

Distillate Fuel Oil

Demand for distillate fuel oil averaged 3.2 million barrels per day for the month, close to the September record. For the year, demand is at a record pace, averaging 3.4 million barrels per day (Figure H4). Production of distillate fuel oil received a boost as some refineries increased the yield of low-sulfur distillates or downgraded kerosene-type fuel as two airline strikes during the month lowered demand for kerosene-type jet fuel.⁷ **Production** of distillate fuel oil set a new September record, averaging 3.5 million barrels per day. Since the beginning of the year, distillate fuel oil production has averaged 3.4 million barrels per day, a new record. **Imports** of distillate fuel oil were normal for the month, averaging 191 thousand barrels per day. For the year, imports are averaging 192 thousand barrels per day, slightly below last year's level. Total **stocks** of distillates ended the month **13.5 million barrels higher than this time last year**. Distillate fuel oil stocks ended the month totaling 152.2 million barrels. Of these stocks, heating oils or high-sulfur distillates accounted for 78.5 million barrels, **nearly 13 percent higher than last September**.

Figure H4. Distillate, Year-to-Date September Comparisons, 1973-1998



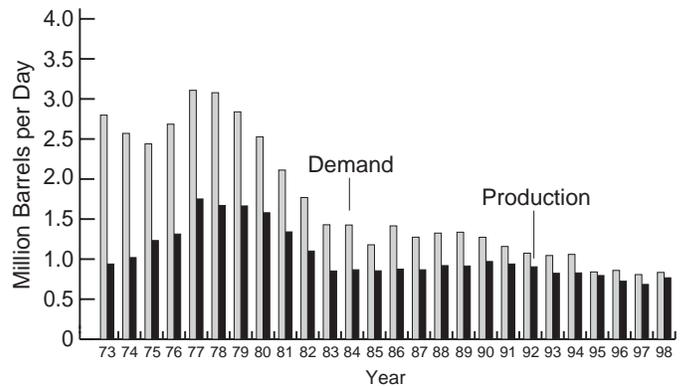
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Residual Fuel Oil

Residual fuel oil **production** reached the highest level for the month since 1995, at an average of 737 thousand barrels per day. **Demand** for residual fuel oil averaged 878 thousand barrels per day, the highest level for September since 1993. Year-to-date figures for residual fuel oil reflect increases in both demand and production over last year (Figure H5). This year, demand for residual fuel oil has averaged 834 thousand barrels per day and production has averaged 768 thousand barrels per day. Residual fuel oil **imports** were the highest September in 5 years averaging

223 thousand barrels per day. End-of-month **stocks** totaled 38.7 million barrels, the highest level for September since 1995.

Figure H5. Residual, Year-to-Date September Comparisons, 1973-1998



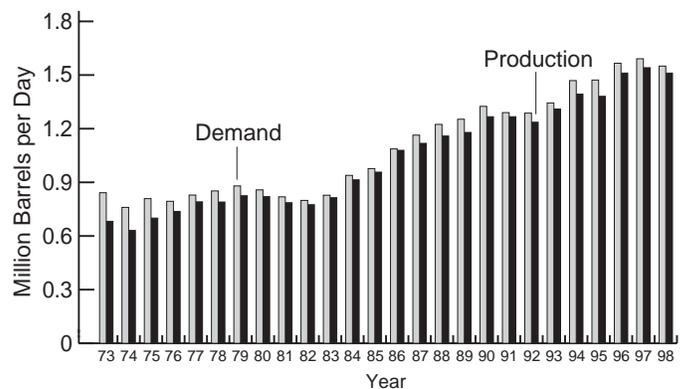
Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Kerosene-Type Jet Fuel

The recent strike by Northwest Airlines combined with the job walk off by the Air Canada pilots early in the month took some of the air out of kerosene-type jet fuel demand in September.⁸

Demand for kerosene-type jet fuel averaged 1.6 million barrels per day, a slight decline from last year's level. With the expected decline in demand due to the problems in the airline industry, production was cut back during the month.⁹ **Production** of kerosene-type jet fuel averaged 1.5 million barrels per day in September, just shy of last year's level. Since the first of the year, demand for kerosene-type jet fuel has averaged 1.6 million barrels and production 1.5 million barrels per day, both down from their respective highs (Figure H6). Total **imports** of jet fuel, kerosene

Figure H6. Kerojet, Year-to-Date September Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

⁷ "Strike Creates Turbulence in Jet Fuel Market", *The Oil Daily*, September 8, 1998, p. 1 & 10.

⁸ "September Presents Challenge For Oil", *Oil Price Information Service*, September 7, 1998, p. 1.

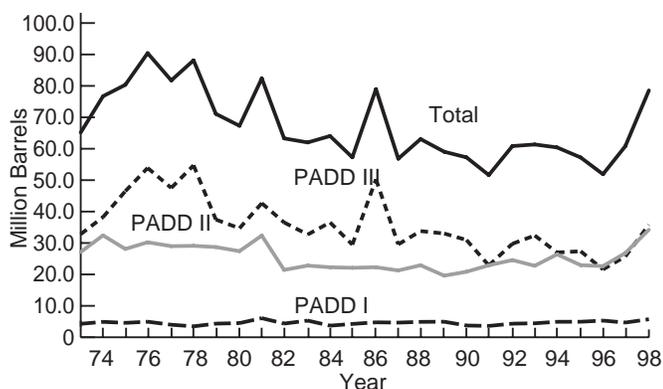
⁹ "Market Firm To Despite Strike", *Oil Price Information Service*, September 14, 1998, p. 15.

and naphtha-type, are down for the year at an average of 74 thousand barrels per day and averaging only 62 thousand barrels per day in September. Kerosene-type jet fuel **stocks** ended the month at 44.4 million barrels, 1.2 million barrels below last September.

Propane

Propane inventories increased a September record 6.0 million barrels to end the month totaling 78.6 million barrels (Figure H7). U.S. propane inventories will start the beginning of the 1998-99 heating season **17.8 million barrels higher than last year** and at the highest level for the month since 1986. Moreover, the final summer stock build measured a record 48.7 million barrels, nearly 15 million barrels higher than the 5-year average of 33.8 million barrels.

Figure H7. Propane Stocks, Year-to-Year September Comparisons, 1973-1998



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

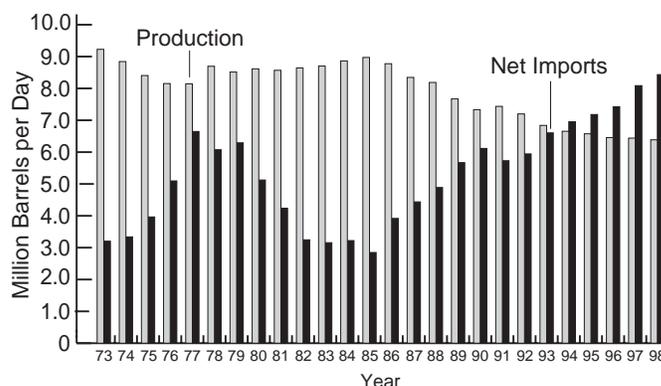
Regionally, stocks showed increases in all major regions during the month. Inventories in the Midwest increased 3.1 million barrels to end the month at 34.2 million barrels. Along the Gulf Coast, inventories increased 3.0 million barrels, for a total of 35.8 million barrels, while propane inventories along the East Coast added another 0.5 million barrels to end the month at 5.7 million barrels. Inventories in both the Midwest and Gulf Coast remained significantly above their respective normal ranges, while East Coast inventories remained moderately above normal.

Crude Oil

Despite the hurricane activity in the Gulf which disrupted production, crude oil production remained relatively flat, increasing only slightly during the month.¹⁰ Domestic crude oil **production** averaged 6.3 million barrels per day, the lowest level for the month since 1954. So far in 1998, domestic production has

averaged 6.4 million barrels per day, the **lowest level for this time period in 44 years** (Figure H8). Field production of crude oil in Alaska averaged 1.1 million barrels per day, the lowest level for September in over 20 years. The decline in crude oil output from Alaska continues the trend starting in 1989. This year, production has averaged only 1.2 million barrels per day, the lowest level for this time period since 1977. Making up for the decline in domestic production, **net imports** of crude oil remain strong, averaging 8.4 million barrels per day. Two major U.S. ports were affected by the tropical storms during September, possibly keeping imports from establishing a new record high for the month.¹¹ Since the start of the year, crude oil imports have been at a record pace, averaging 8.6 million barrels per day, over 4 percent ahead of last year. Net imports, gross imports minus exports, of crude oil averaged 8.3 million barrels per day in September and have set a record for the year at an average of 8.4 million barrels per day.

Figure H8. Crude Oil, Year-to-Date September Comparisons, 1973-1998, Production and Net Imports



Source: Energy Information Administration, *Petroleum Supply Annual*, DOE/EIA-0340 (various issues), and *Petroleum Supply Monthly*, DOE/EIA-0109 (various issues).

Excluding the SPR, crude oil **stocks** totaled 321.8 million barrels by the end of the month. This represents the highest level for this time of year since 1994 and nearly 6 percent higher than last September's month end level. Total crude oil stocks, including the SPR, ended the month nearly 18 million barrels above this time last year. Total crude oil stocks ended the month at 885.2 million barrels.

Refinery Operations

During September, crude oil **inputs** averaged 15.0 million barrels per day, close to the September record established last year. U.S. refineries are running at a record pace this year, crude inputs are averaging 15.0 million barrels per day. During the month, the estimated refinery **operable utilization rate** averaged 95.1 percent versus 99.6 percent last year.

¹⁰ "BN 10/1 Crude Oil Falls Amid Ample Supplies, Even With Storms (Update2)", *Bloomberg*, October 2, 1998, accessible via the Internet at <http://www.bloomberg.com/>.

¹¹ "Gulf Spot Oil Prices Follow Futures Higher; Prospect of More Crude Imports Hurts LLS", *The Oil Daily*, September 14, 1998, p. 4.