# ARE WE RUNNING OUT OF OIL? by L. B. Magoon

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VERSION 1.0

***Q!*** Are we running out of oil?
***A!*** Wrong question! The question is "When is **THE BIG ROLLOVER**?"

***Q!*** What's **THE BIG ROLLOVER**?
***A!*** It's when the demand for oil outstrips the capacity to produce it.

***Q!*** Has **THE BIG ROLLOVER** occurred before?
***A!*** On a smaller scale, yes! The U.S. ROLLOVER occurred in 1970 (Figure 1, ***A***). Remember those long lines at the gas stations in 1973? It has also occurred in the Former Soviet Union (Figure 1, ***B***). **THE BIG ROLLOVER** is global, not local.

***Q!*** Does that mean we are running out of energy?
***A!*** Not exactly! It means we are going to be running short of a very convenient form of energy, one that propels our **Planes**, **Trains**, and **Automobiles**! Up until now, it has been a buyer's market but after **THE BIG ROLLOVER**, it will be a seller's market (Figure 1, ***C***)

***Q!*** Whose fault is it? Who's holding out?
***A!*** Nobody, just like the 'buffalo' and 'the fish in the sea,' they are just less plentiful. Same with oil, there is a limit to how much oil the world can produce every day. We are not running out of oil, it will just become more precious.

***Q!*** Should we do something to prepare for **THE BIG ROLLOVER**?
***A!*** Just like preparing for the Y2K BUG…. talk about it, talk about it, and talk about it!

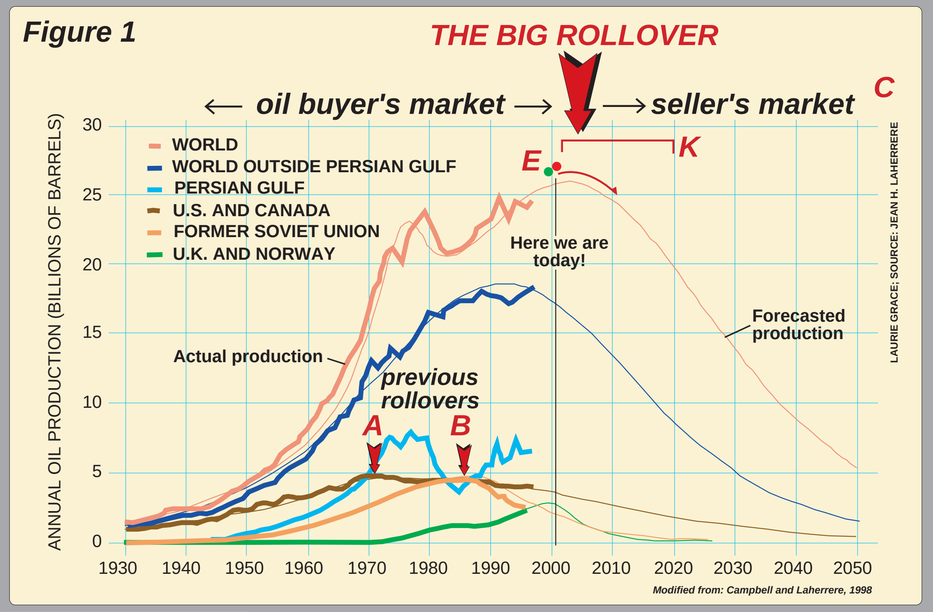
***Q!*** What good is talk?
***A!*** As somebody once said, "You can't solve a problem until you know you have one."

***Q!*** Then what?
***A!*** After we get through the finger pointing, then real solutions will come forth from very creative people in science and technology, in business and politics, in city, state, and Federal governments, and in our other institutions. We all are the stakeholders!

***Q!*** Wouldn't it be better to get started solving this problem before **THE BIG ROLLOVER** is upon us?
***A!*** Absolutely! There's no substitute for planning and implementing that plan before the oil shortage occurs. We can turn a lose-lose situation into a win-win situation if we start now.



## Figure 1




*Modified from: Campbell and Laherrere, 1998*

## Table 1

***Impact of 1.1 million barrels per day output hike on oil consumption & prices***

| | ACTUAL 1st Qtr 2000 | FORECAST 2nd Qtr 2000 | 3rd Qtr 2000 | 4th Qtr 2000 | Actual 1999 | Forecast 2000 |
|---|---|---|---|---|---|---|
| | millions of barrels per day | | | | | |
| World oil demand | 76.6 | 74.5 | 75.8 | 78.0 | 75.3 | 76.2 |
| Non-OPEC supply | 45.7 | 45.4 | 45.6 | 46.4 | 44.6 | 45.8 |
| OPEC supply | 29.2 | 30.5 | 30.7 | 30.8 | 29.3 | 30.3 |
| Dollar per barrel | $27.4 | $26.7 | $26.3 | $28.3 | $17.9 | $27.2 |

I

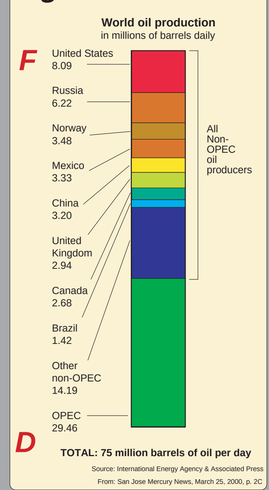
E ***27.5 billion barrels consumed in 1999***
***27.8 billion barrels to be consumed in 2000***
***1.1% increase in consumption***

From Oil & Gas Journal, April 3, 2000, p. 27

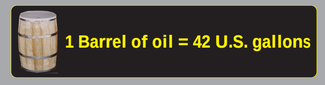
## Table 2

| | Year of THE BIG ROLLOVER | FORECASTER |
|---|---|---|
| J | 2003 | Campbell, 1998 |
| | 2004 | Bartlett, 2000 |
| | 2007 | Duncan and Youngquist, 1999 |
| | 2019 | Bartlett, 2000 |
| | 2020 | Edwards, 1997 |
| | 2010-2020 | International Energy Agency, 1998 |

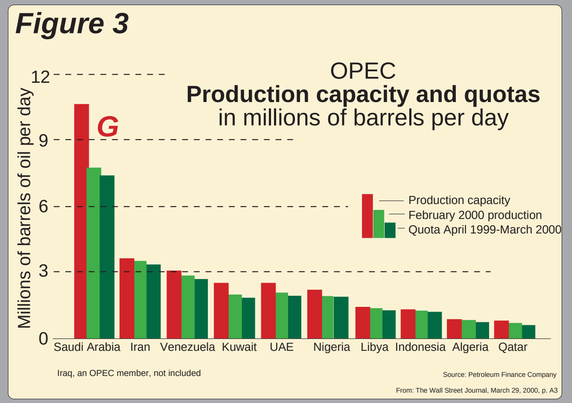
## Figure 2




Source: International Energy Agency & Associated Press
From: San Jose Mercury News, March 25, 2000, p. 2C




## Figure 3




Iraq, an OPEC member, not included

Source: Petroleum Finance Company
From: The Wall Street Journal, March 29, 2000, p. A3

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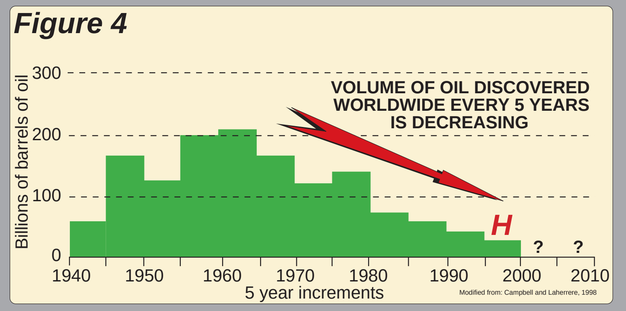
## Figure 4




Modified from: Campbell and Laherrere, 1998

***Q!*** What is the world's oil production now?
***A!*** The world produces 75 million barrels a day (Figure 2, ***D***), or 27 billion barrels a year (Figure 1 and Table 1, ***E***).

***Q!*** How much do we consume?
***A!*** The U.S. consumes just over 19 million barrels a day or just over 7 billion barrels of oil a year. The U.S. consumes 26% of the world's oil every day! Or, 300 million U.S. consumers out of 6 billion world consumers, that's 5 % of us, use 26% of the oil.

***Q!*** How much of that do we produce?
***A!*** The U.S. produces 8 million barrels of oil a day, so we import 11 million barrels, or 58% of what we use (Figure 2, ***F***)!

***Q!*** What about Saudi Arabia?
***A!*** Saudi Arabia has about 3 million barrels a day of excess production capacity (Figure 3, ***G***). Depending upon world oil demand, it could last a few more years, but then what?

***Q!*** Whew! That's a lot of oil. With all our technological advances, aren't we finding enough oil to replace what we use?
***A!*** No! Technology is great, but it can't find what's not there. In the last 5 years, we consumed 27 billion barrels of oil a year, but the oil industry discovered only 3 billion barrels a year (Figure 4, ***H***). So, only 1 barrel was replaced for every 9 we used!

***Q!*** With demand so high, what will the prices do?
***A!*** The price of oil is quite likely to stay above $25 per barrel (Table 1, ***I***)

***Q!*** So when is **THE BIG ROLLOVER**?
***A!*** Nobody is sure, but those willing to forecast say somewhere between 2003 and 2020 (Table 2, ***J***). Most everybody seems to agree that it will most likely be within our life time, and possibly quite soon (Figure 1, ***K***)!

***Q!*** What should we do to prepare for **THE BIG ROLLOVER**?
***A!*** Hang on tight, if we don't recognize the problem soon and deal with it, it's going to be quite a ride!

*http://geopubs.wr.usgs.gov/open-file/of00-320/*