



Peak Oil Update - October 2006: Production Forecasts and EIA Oil Production Numbers

Posted by [Sam Foucher](#) on October 16, 2006 - 11:36am

Topic: [Supply/Production](#)

Tags: [ali morteza samsam bakhtiari](#), [bp](#), [chris skrebowski](#), [eia](#), [logistic](#), [loglets](#), [m. king hubbert](#), [oil](#), [oil prices](#), [peak oil](#), [rembrandt koppelaar](#), [stuart staniford](#), [update](#) [list all tags]

[Update by [Khebab](#) on 10/17/06 at 9:40 AM EDT] I made some corrections in Table I and added Deffeyes forecast.

An update on the last production numbers from the EIA along with different oil production forecasts.

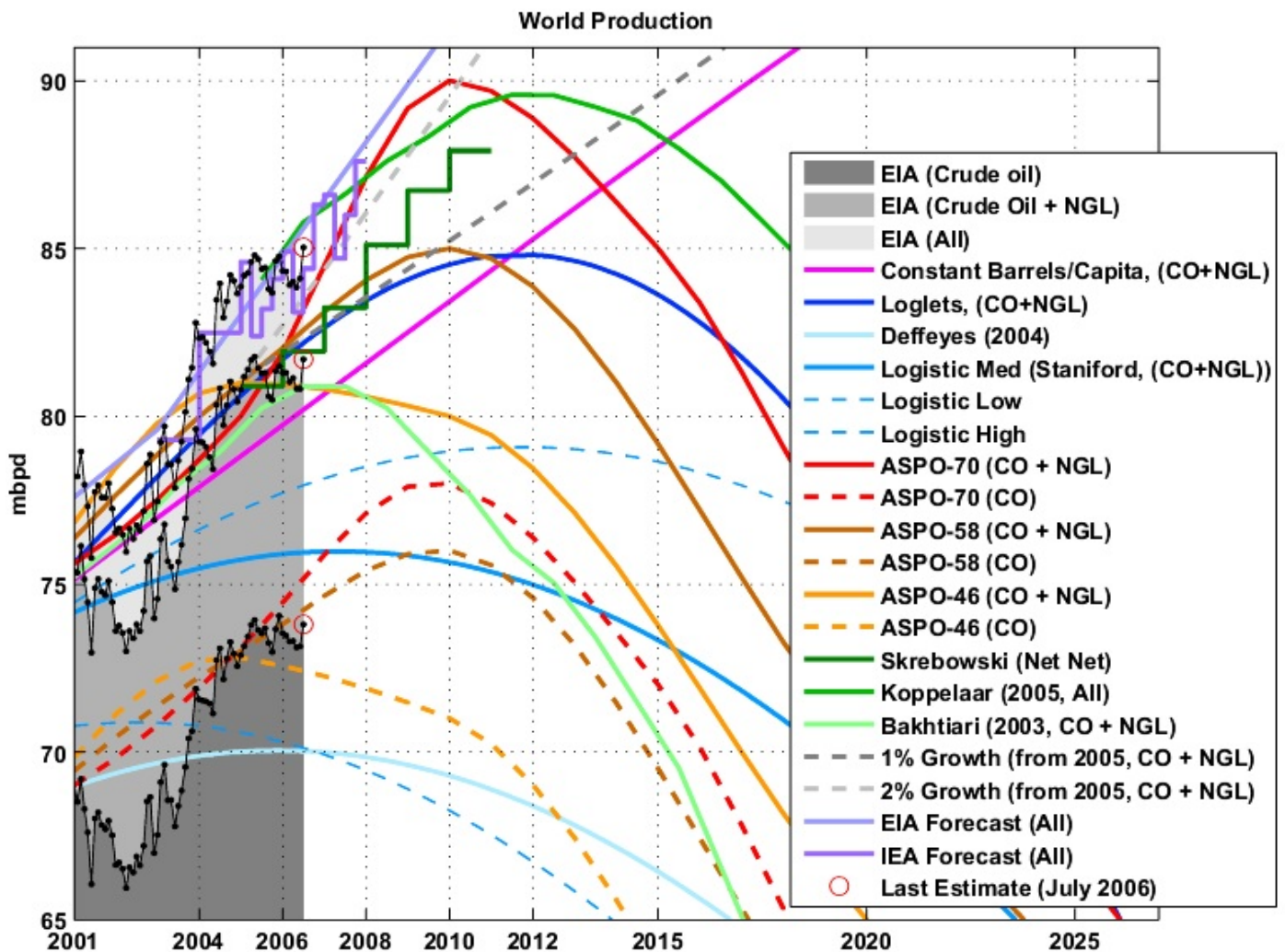


Fig 1.- World oil production (EIA Monthly) and various forecasts (2000-2020). Click to

Data sources for the production numbers:

- Production data from BP [Statistical Review of World Energy 2006](#) (Crude oil + NGL).
- [EIA data](#) (monthly and annual productions up to July 2006) for crude oil and lease condensate (noted CO) on which I added the NGPL production (noted CO+NGL).

Most of the datasets above are compiled in an EditGrid [spreadsheet](#).

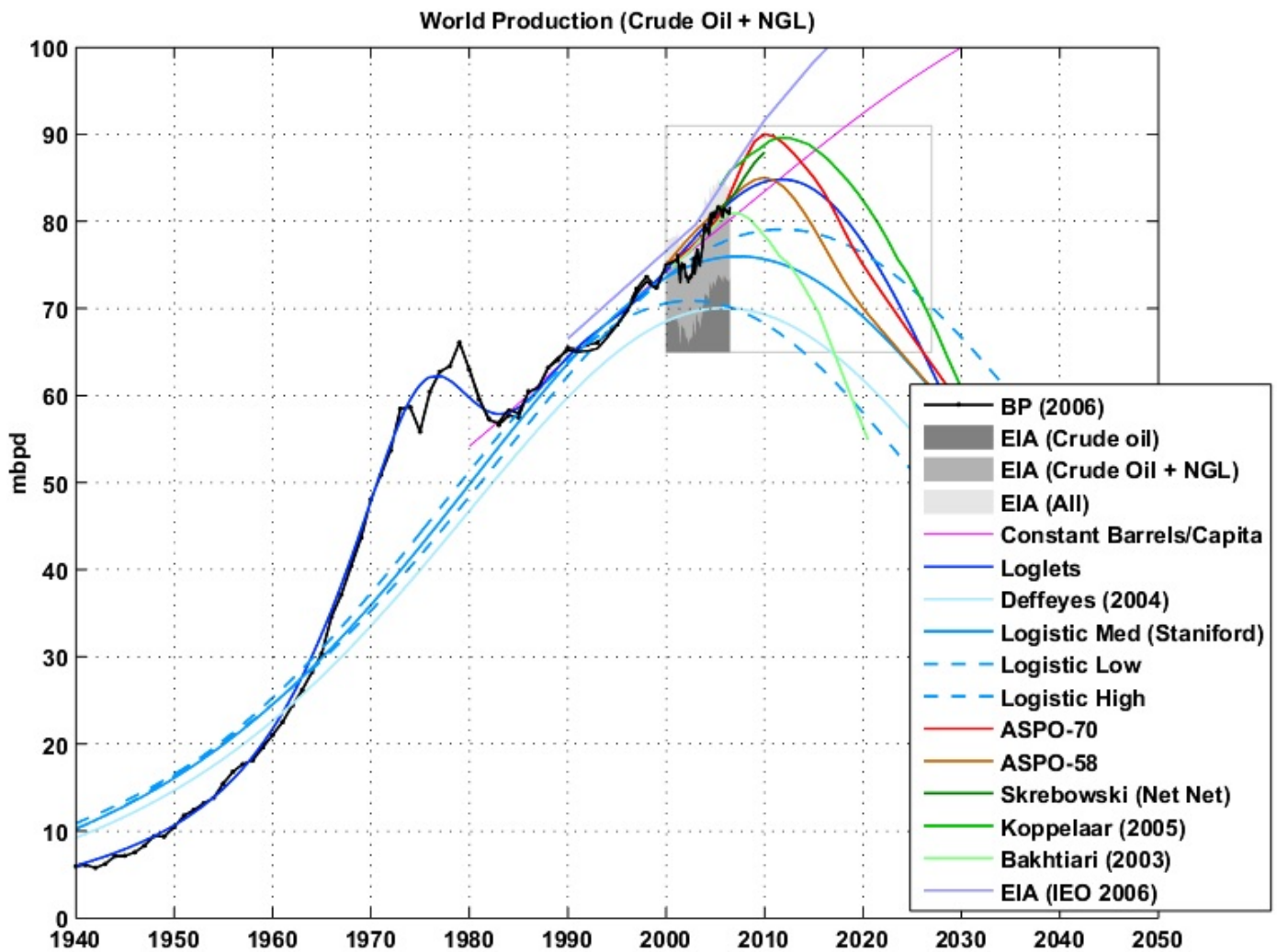


Fig 2.- World oil production (Crude oil + NGL) and various forecasts (1940-2050). Click to Enlarge.

Business as Usual

- EIA's [International Energy Outlook 2006](#), reference case (Table E4).
- IEA total liquid demand forecast for 2006 and 2007 ([Table1.xls](#)).

- A simple demographic model based on the observation that the oil produced per capita has been roughly constant for the last 26 years around 4.4496 barrels/capita/year (Crude Oil + NGL). The world population forecast employed is the [UN 2004 Revision Population Database](#) (medium variant).

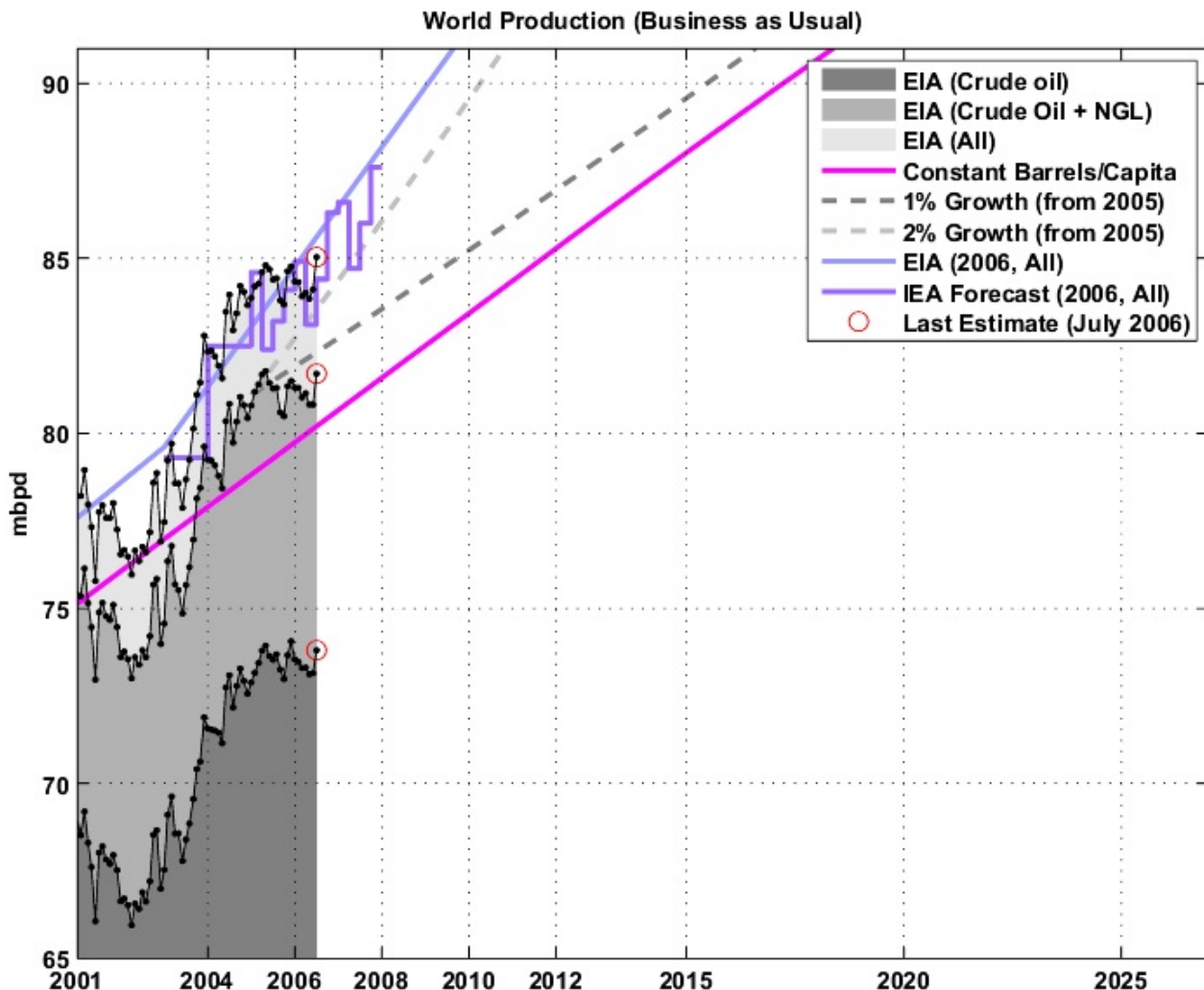


Fig 3.- Production forecasts assuming no visible peak. Click to Enlarge.

PeakOilers: Bottom-Up Analysis

- Chris Skrebowski's megaprojects database (see discussion [here](#)).
- The ASPO forecast from the last newsletter ([#70](#)): I took the production numbers for 2000, 2005, 2010, 2015 and 2050 and then interpolated the data (spline) for the missing years. I added the previous forecast issued one year and two years ago (newsletter [#58](#) and [#46](#) respectively). There was no revision since August 2006.
- Rembrandt H. E. M. Koppelaar ([Oil Supply Analysis 2006 - 2007](#)): "Between 2006 and 2010 nearly 25 mbpd of new production is expected to come on-stream leading to a production (all liquids) level of 93-94 mbpd (91 mbpd for CO+NGL) in 2010 with the incorporation of a decline rate of 4% over present day production".
- Koppelaar [Oil Production Outlook 2005-2040 - Foundation Peak Oil Netherlands \(November 2005 Edition\)](#).
- The [WOCAP model](#) from Samsam Bakhtiari (2003). The forecast is for crude oil plus NGL.

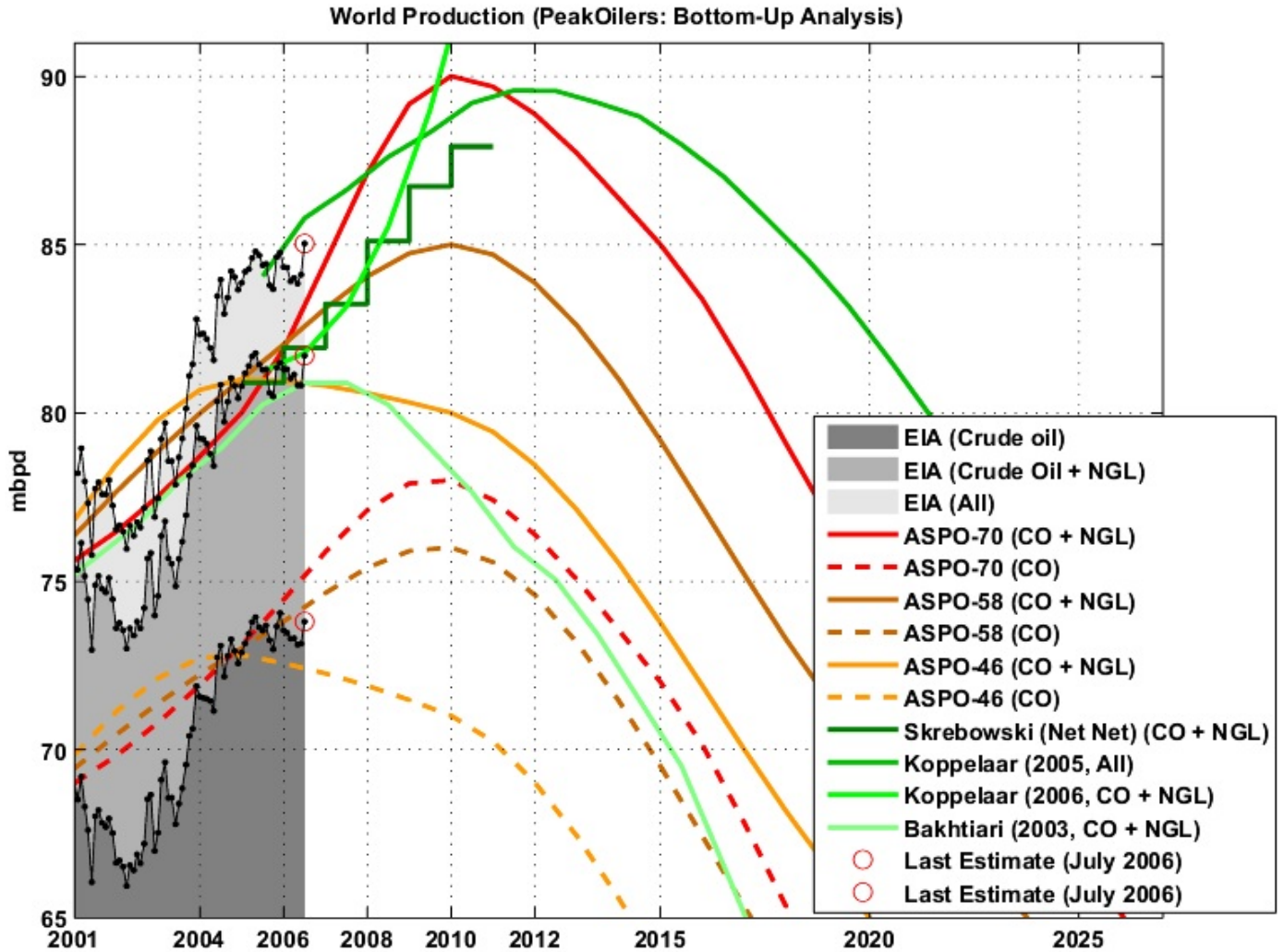


Fig 4.- Forecasts by PeakOilers based on bottom-up methodologies. Click to Enlarge.

PeakOilers: Curve Fitting

The two following results are for Crude Oil plus NGL (CO+NGL) production:

- Professor Kenneth S. Deffeyes forecast ([Beyond Oil: The View From Hubbert's Peak](#)): Logistic curve fit applied on crude oil only with URR= 2013 Gb and peak date around November 24th, 2005.
- Logistic curves derived from the application of Hubbert Linearization technique by Stuart Staniford (see this [post](#)).
- Results of the [Loglet analysis](#).

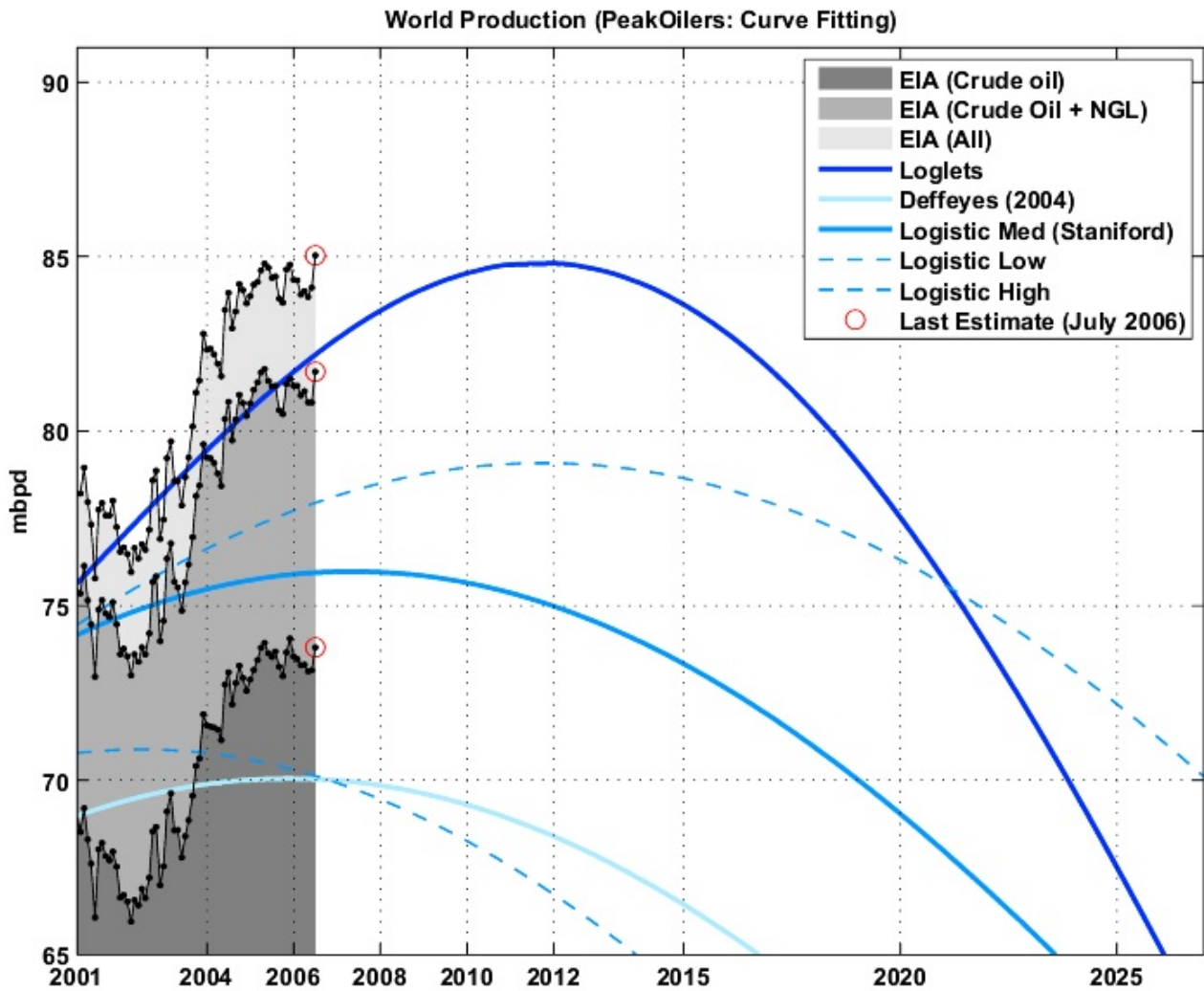


Fig 5.- Forecasts by PeakOilers using curve fitting methodologies. [Click to Enlarge.](#)

Production Growth

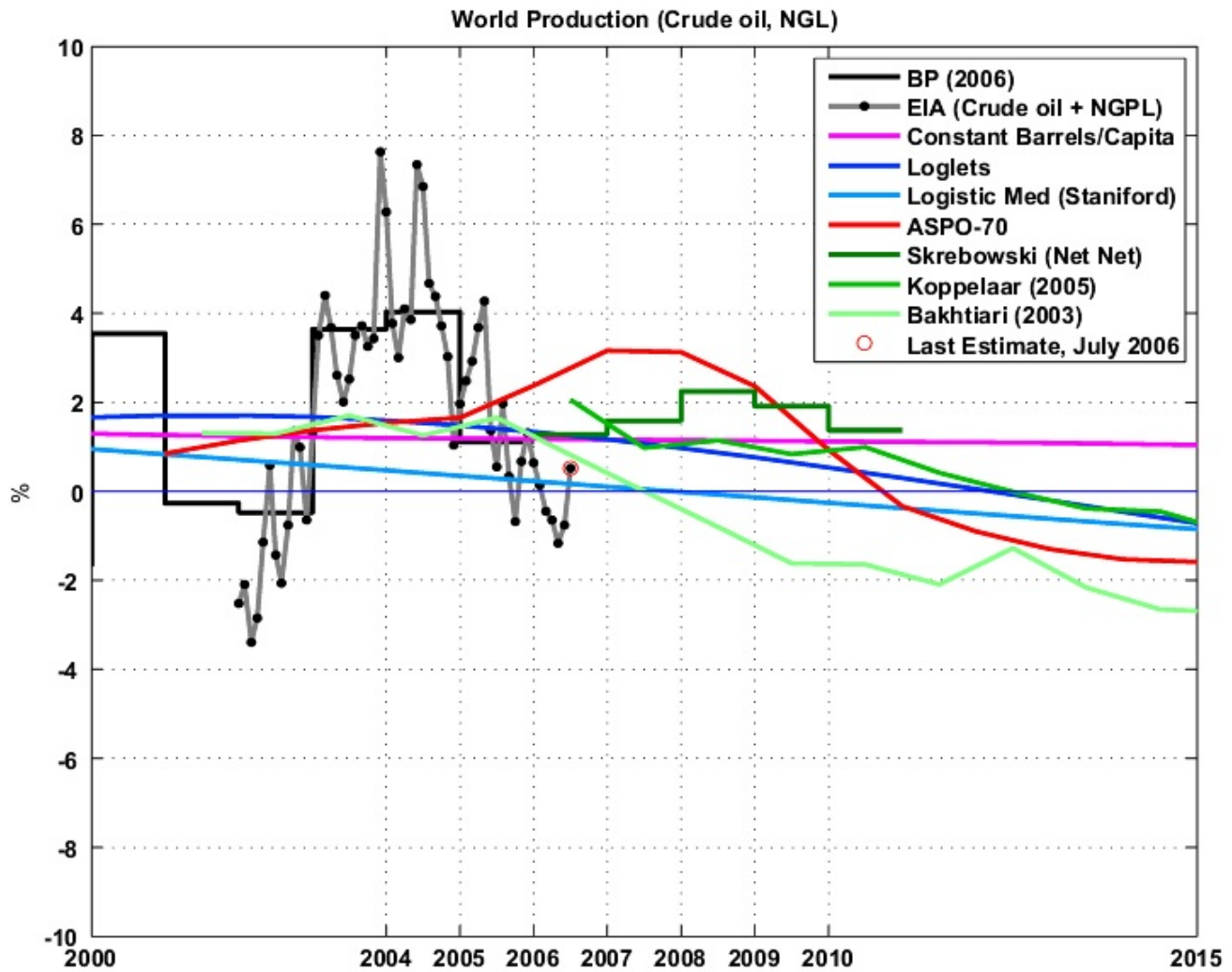


Fig 6.- Year-on-Year production growth. Click to Enlarge.

Forecast	2005	2006	2010	2015	Peak Date	Peak Value
All Liquids						
Observed (All Liquids)	84.34	84.22	NA	NA	2006-07	85.03
Koppelaar (2005)	84.06	85.78	89.21	87.98	2011	89.58
EIA (IEO, 2006)	82.70	84.50	91.60	98.30	?	?
IEA (2006)	83.38	84.40	NA	NA	?	?
Crude oil + NGL						
Observed (EIA)	81.23	81.15	NA	NA	2005-05	81.77
ASPO-70	80.00	81.90	90.00	85.00	2010	90.00
ASPO-58	81.00	82.03	85.00	79.18	2010	85.00
ASPO-45	81.00	80.95	80.00	73.77	2005	81.00
Koppelaar (2006)	81.76	82.31	91.00	NA	2010	91.00
Bakhtiari (2003)	80.24	80.89	77.64	69.51	2006	80.89
Skrebowski (2006)	80.90	81.42	87.32	NA	>2010	>87.92
Staniford (High)	77.45	77.92	79.01	78.51	2011-10	79.08
Staniford (Med)	75.81	75.94	75.52	73.00	2007-05	75.98

Staniford (Low)	70.46	70.13	67.92	63.40	2002-07	70.88
Loglets	81.12	82.14	84.65	83.26	2012-01	84.80
Constant barrels/capita	78.81	79.73	83.42	88.01	2050	110.64
Crude oil + lease condensate						
Observed (EIA)	73.49	73.38	NA	NA	2005-12	74.05
ASPO-70	73.10	74.45	78.00	72.00	2010	78.00
ASPO-58	73.00	73.80	76.00	69.50	2010	76.00
ASPO-58	72.80	72.56	71.00	63.55	2005	72.80
Deffeyes (2004)	70.03	70.02	69.11	66.07	2005-12	70.04

Table I. Summary of all the forecasts (figures are in mbpd) as well as the last EIA estimates.

Next update in November.

Previous Update:
[September 2006](#)



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