2015 Highlights and Outlook for 2016
2015 Highlights
2015 Highlights

Oil Price <$40 per barrel—who knew?....wait, someone did:

- Adam Pilarski has been predicting low oil prices for several years
- Many remained skeptical
- But, Adam banked on trends where world oil demand was flat or only modestly increasing and supply was, well.....in large supply
- Thus, it was only a matter of time until low prices was a reality
- Price of oil has serious implications for the industry
2015 Highlights

MRJ first flight in November…..but maybe deliveries in 2018?

- The Mitsubishi MRJ90 made its first flight in November
- The 80-90 seat jet aims to compete on a worldwide basis particularly in the U.S. under pilot scope limitations
- But, the aircraft is a little heavy relative to the current 86K MTOW mandate under scope, so it will have to lose some weight (won’t happen) or the weight under pilot scope may permit it (maybe)
- And now the MRJ folks have announced that the aircraft won’t enter service until……2018….so, a two-year test flight program?
- It’s a little more complicated than that, but it is a setback for Mitsubishi
- As Dr. Seuss says, ‘How did it get so late so soon’
2015 Highlights

A350-900 delivered to Qatar (ok...technically, it was December 2014)

- A350-900 delivered to Qatar
- Almost 800 orders for all versions of the A350
- Safe to say, this will be a most successful program for Airbus

Airbus A320neo delivery (a little late?)

- A320neo is scheduled to deliver in late December (any day now)
- Some reports indicate that IndiGo will be taking the aircraft later than the expected Dec 30 original date
- Airbus says the late delivery for IndiGo is due to ‘industrial reasons’
- Now, Lufthansa is likely to be the first to take delivery of the new aircraft
- As Dr. Seuss says, ‘How did it get so late...wait a minute, I said that already
- Notwithstanding the small delay (if there is one), the neo program will be very successful
2015 Highlights

Boeing rolled out the first 737 MAX

- **Boeing rolled out its 737 MAX in December**
- **First flight is due in 2016**
- **The 737 MAX series of aircraft has about 3,000 aircraft orders**
- **With an expected EIS of 2017, the MAX family of aircraft will be more than a year behind its competitor, the Airbus neo family**
- **Still, it will be a very successful program**

Source: Boeing
Interest rates up (US Fed raised rates for the first time in nine years!)

**2015 Highlights**

- The U.S. Federal Reserve raised the Fed rate by 25 basis points, i.e., one-quarter of one-percent in December
- It had been zero (or near zero) for six years
- The Fed said they were reasonably confident that the economy was strong enough to support the small increase and that inflation will rise to no higher than 2% (which is its objective)
- What does this portend about the future? Well, probably nothing right now, but the future implications are….check out the 2016 Outlook
Airline’s Profitability

**2015 Highlights**

- Airlines continued their string of profitable years with record profits in 2015 with an expectation that 2016 will be even better.
- Now, six straight years of profitability.
- Low fuel prices, good traffic, high load factors, balanced capacity, and reasonably good yields all contributed to profits.....funny how that works.

**Source:** ICAO, IATA Economics
2015 Highlights

Star Wars—The Force Awakens—launched

• Well, Star Wars does have something to do with aviation...right?
• In any event, movie is great and that is one beautiful paint job on the ANA Dreamliner
• May the Force be with You

Source: Boeing
2015 Highlights

112 year anniversary of Wright Brothers 1st flight

Source: Bing

A terrific book!
2015 Highlights

And speaking of anniversaries.........AVITAS celebrated its 30th Anniversary

AVITAS is a full-service aviation consulting firm with senior staff that have comprehensive hands-on expertise from all facets of the aviation industry.

We are the leading aircraft expert advisor to financial institutions, airlines, manufacturers, law firms, maintenance facilities and government agencies.

Our offices are located in Washington, DC, New York and London.

• AVITAS is proud to have served the aviation industry for 30 years
• We pride ourselves in our commitment to the industry and our quality of work
• We look forward to serving the industry for many years to come
2016 Outlook
Continuation of cheap oil? Yep

- Fundamentals of big supply and flat demand will still be in place
- As nearby chart shows, EIA (US Energy Information Administration) show these long-term scenarios
- But, current oil prices are lower than their lowest scenario
- "Prediction is very difficult, especially if it’s about the future"……… Nils Bohr, Nobel laureate in Physics

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2016 Outlook

Boeing MAX first flight

• MAX has more than 3,000 firm orders (and counting)
• Boeing with 737NGs and MAXs and Airbus with ceos and neos will control the single-aisle market for the long-term

Source: Boeing
2016 Outlook

C919 Scheduled to have First Flight

- Comac’s C919 is schedule to fly in 2016 after its roll out in November
- Launched in 2008, first deliveries were scheduled for 2016
- However, aircraft deliveries have slipped to 2018, but maybe 2019/2020 is more realistic
- With the C919 (and the ARJ21) plus the MRJ90, new entrants are beginning a challenge to the incumbent players
- How serious? Well, you have to start somewhere
- And, competitors who are in the market for other than profit reasons (country prestige, for example) can mount serious threats over the long-term
2016 Outlook

Higher interest rates....Yes....and with cheap fuel, retirements will be less

- This ‘Chart of the Month’ from earlier 2015 shows the relationship between oil price and interest rates on aircraft retirements
- With lower oil prices and with rising interest rates, retirement rates will be lower
- As one of our airline colleagues said, “this isn’t the chart of the month, it is the Chart of the Decade”

Does this relationship mean there is an bubble in aircraft orders?

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2016 Outlook

Low Cost Airlines Exerting More Clout

• In just six years, low cost airlines have increased their in-service aircraft fleet from about 2,700 aircraft to 4,700
• And they have another 4,200 aircraft on firm order backlog
• Look for low cost airlines to have a fleet of near 8,000 aircraft by 2020
• Low cost airlines are growing significantly faster than network airlines
2016 Highlights

EJet 190E2 will Roll-Out in February.....and Sao Jose dos Campos is a great place to visit

- Embraer will roll-out its EJet190-E2 aircraft in 2016
- The EJet program has been a large success for Embraer who has had a steady plan across the competitive landscape with its product offerings
- The current order book for the EJet-E2 lineup is now over 300 units (EJet-E2s: 175/190/195) and the in-service E190 has an installed base of more than 500 aircraft with more than 40 operators—a potential pathway for deliveries of the new E190-E2
- However, despite Embraer’s success, its overall delivery volume is marginal compared to Boeing and Airbus
- And now, Embraer will be seeing new competitors from the MRJ, the SSJ, and maybe even the ARJ
- Exciting times, but if you are a manufacturer, not for the weak of heart

Source: Embraer
2016 Outlook

CSeries first delivery

• After a multiyear delay (three to be exact), the CSeries will deliver in 2016 (Swiss International will take delivery of the CS100)
• Delays and financial difficulties at Bombardier have hampered new orders
• And the order book is behind where Bombardier wanted it to be before EIS
• However, with deliveries in 2016, Bombardier hopes to gain a significant presence in the mid-size single aisle market
• Still, is the CS100 and possibly the CS300 too small to compete for large airline orders? And does Bombardier have the financial strength for the long-haul?
2016 Outlook

Economic weakness in several major regions possible

- Strong relationship between GDP and passenger traffic
- Slower GDP expected in China and Emerging Markets
- Mature market of the US and Europe showing some growth

And expansion periods (in the US) is now at 79 months; average expansion periods over last five cycles is about 71 months
And for the Long Term….maybe a little disruption

Poppi: The Airline of the Future

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