

Fuddle Duddle

"Those who have knowledge, don't predict. Those who predict, don't have knowledge."

Lao Tzu

There is always a certain amount of temptation to revisit the finishing year towards the end of the calendar. Rather than restate what has happened in 2017, our first note of 2018 will take a plunge and cover what we think is going to happen. 2018 is likely to carry over the same dynamics that led to a particular and most interesting 2017, unlike the new Star Wars movie (save yourselves time and money - it's horrible). Three topics to keep an eye on for this note, Canada (TACAIR), M&A (Thales) and Airbus. Our initial intent was to write a note focused on Airbus only. We will do that in the new year, but the Toulouse firm has had a 2017 that would possibly scare off most boards of directors to a desert island in an attempt to forget it all.

Canadian Bacon

Not for Boeing – unless change turns things around in Ottawa, not impossible, but unlikely. We have been studying the RCAF TACAIR competition for a while now and the F/A18E Super Hornet would have met Canada's operational requirements. Unfortunately, Boeing's spat with Bombardier over the C-Series subsidies has led Ottawa to, rightfully in their view, terminate the Super Hornet buy, and to launch a tender for the acquisition of up to 88 new fighters, with a decision due by 2022. Back to the future, you may say; how much of a chance do Dassault, Airbus and Saab stand in a competition that has mostly been perceived as being written to favor F-35? Based on capability alone, it is clear that the Lockheed Martin F-35 and Dassault Rafale are well above the lot in terms of multirole capabilities and growth path. Typhoon excels as an interceptor but lacks the Rafale's multirole strengths and IEW suite. Gripen is in a different league, but is nevertheless a highly capable asset. Is this about capabilities? Not really, although it matters greatly, it is mostly about politics: acquisition politics, budget politics, defense politics, industrial politics, you name it. Canada's choice is about a direction. There are plenty of reasonable arguments to carry on with US forces, primarily operational integration; there are equally strong arguments to become more UK or France centered when it comes to procurement and potential ancillary industrial benefits, but we view this as a long shot. Interoperability is important – and interoperability is not defined similarly on both sides of the Atlantic. We still therefore view this as F-35's to lose. For Boeing, the consequences are more profound than it seems. While we side with Boeing on the specific and isolated matter of trade law, the Bombardier spat has raised many issues and concerns amongst some existing and potential international operators as to the reliability of the US defence prime, and its subsequent approach when confronted with conflicting commercial interests. Several competitions will be affected in the next five years and [this series of interesting events \(see Note 18\)](#) has provided ample ammunition to competitors and customers to go in a direction that may not benefit Boeing Defense, Space & Security. As another Canadian prime minister famously said: "having hit a wall, the next logical step is not to bang our heads against it."

Once Upon a Time in the Sud-Ouest: The Good, the Bad and the Ugly

The Good: A320 sales and, in particular, A321NEO continue to be strong with a total of 1,512 net orders for the later vs 274 for the MAX10 (including conversions). A321 and derivatives continue to rout the MAX9 and especially MAX10 despite positive launch year numbers suggesting otherwise. We are slightly more optimistic about MAX10 traction but so far, 2017 has mostly only been about those MAX9 conversions. Delta's decision is indicative of the continuing MAX10 struggle vs the A321NEO and the PW1000G family, and the associated and sizeable opportunity presented by engine MRO. Strategically, Airbus will need to examine what to do before NMA enters service. We still are of the opinion that Boeing cannot afford to wait for the late 2020s to introduce this aircraft, for cashflow reasons primarily, and we maintain our 2024-2025 EIS guidance. The question for Airbus is one of timely response, and this is where the master strike of 2017, the Bombardier C-Series/Airbus partnership may prove very valuable. As a side note, not only did Airbus catch Boeing somewhat by surprise, it also prevented China from getting access to many "leapfrogging" assets, helped in part by Ottawa's rumored wise choice to call on for assistance from Rue du Faubourg St-Honoré. This partnership has the potential to rewrite the Airbus narrowbody strategy at many levels. We are not suggesting that the CS family is the basis for an A320 replacement; what it may become is the basis to support technology choices and product strategy beyond 2030. There are those who think in terms of aircraft (dreadful 1:1 thinking) replacement, but the MARKET is evolving, and very quickly, with an upward migration of aircraft size driven by multiple factors from airport sizes, pilot shortages and demographics. This is primarily why Airbus currently holds the line against Boeing in the 200-230 segment, and that for the foreseeable future. We are not saying checkmate yet, but to prevent a 2020s debacle, Boeing has to do NMA, and faster than 2027-2028... What would be Airbus' response? It can produce a new design (a desirable option), since a 32X does not provide sufficient shelf life and traction to go head to head against NMA over 20 years. A32X is however quite adapted to budget conscious customers, it provides continuity and cost efficiencies. With pilot shortage becoming even more an issue, commonality will become increasingly more valuable. Airbus can also be in the privileged position of being second to market and keep optimizing its current portfolio of solutions. The market dynamics will change in the 2030s, and Airbus might chose a slightly different product strategy to counter NMA, one that focusses on the lower end of that market – since NMA might be more vulnerable performance wise in that area but it's early days.

The bad: well, A380. This looks like another bad year for sales. What is next? Termination? No. A380 is one third into its operational life. There is simply too much of a potential demand out there over twenty years but... in order to face off with 777-9 and its likely longer-range derivatives, Airbus will need more than the Plus, it simply needs a refresh, a NEO Plus. Sales potential is real over 20 years, but the investment required to take A380 in a fair fight against 777 is potentially considerable. While we are on the record supporting A380, the uncertainty surrounding the market is going to remain for another 2-3 years. In the meantime, the doomsayers are going to produce even more insipid articles claiming the end is nigh. No one needs repenting yet, the A380 has a market role to play but it critically needs a refresh. A380plus is not going to cut it in most cases vs the competition. A380 needs to be cheaper, bigger and optimized technologically, otherwise, the end is nigh.

The ugly: A400M. While performance & availability are improving, albeit modestly, the initial programme inception problems, particularly the engine decision, are still plaguing the aircraft today. Based on these lessons learned, it is important that Airbus considers letting Dassault Aviation take on the lead role for the Franco-German combat aircraft project. Committee driven decisions, especially when defining military aircraft programmes, don't age well. Case and point. As far as the leadership issues are concerned, the appointment of Guillaume Faury hopefully brings longer term stability, we view any uncertainty surrounding the current leadership problems as short lived.

Thales' theorem

Thales deserves the winning trophy for its 2017 acquisition strategy. With the announcement last Sunday that it has agreed to purchase Franco-Dutch company Gemalto (a leader in digital security). This \$3.6B addition to Thales' \$17.2B revenues will propel combined revenues above \$20B. This acquisition will uniquely position the group in the domains of connectivity, cybersecurity, IoT, big data and AI in the defense, aerospace, transportation and space segments. The integration of Gemalto and earlier this year, Guavus, will enable Thales to be uniquely positioned as a one stop cybersecurity provider. This has a potential profound impact on the competitiveness of the organization in the avionics domain with such a range of capabilities, Thales is jumping ahead of its competitors in their ability to define and build the next generation airborne electronic solutions while also addressing the transformation of the supply chain and the advent of industry 4.0. If executed optimally, this acquisition may prove to be a profoundly transformational and game changing move.

