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Hello Mario and Paul,

Thank you very much for sending the interesting article on the topic of Vertical Integration. The article you sent is one of many articles that have been published about Boeing's intended business strategies. Much of what is driving Boeing and Airbus is of course the desire to improve their place in the aeronautical market place.

Both the major OEMs have similar business strategies, their execution may be culturally different, but their goal of increasing their revenue and market share are their common goals.

In this changing dynamic of the new way of aircraft development, aircraft acquisition, and airline/operator consolidation, what then is the need for AEEC standards? My belief is that we need AEEC now, more than ever. Not only does the AEEC provide standards, but by participating it creates the next generation airline engineering leadership. We have over 60 years of demonstrated results.

My hope is that airlines will see the many benefits of the AEEC and be more willing to participate. Aircraft development today and for the foreseeable future will be based on AEEC standards. In order to continue to meet the needs of the entire industry, and for the airlines to have a say in the standards process, we must have all the airlines, especially those not actively participating today, become actively involved.

### **Airline Role**

- We have great support from many of the legacy airlines, but we need support from all the major airlines. In my 30 years of participation and chairing groups, I benefited hugely, it gave me the background and knowledge to be effective in my professional career. We all stand on the shoulders of those who went before us, but what happens if we don't get our next generation of participation. Who's shoulders do we stand on?
- Recently two legacy airlines (BA and Iberia) quit the AEEC. Both had seats on the committee and had provided many years of supportive service. I know there is always tremendous financial pressure on engineering, but not being able to justify AEEC participation truly reflects a lack of vision / a lack of understanding on the value that AEEC brings to the industry. It would be great to have them back.
- Not enough airlines are signing up to be members and paying the necessary fees in order to continue to support and sustain the AEEC effectively.
- Too many new airlines or non-US airlines who do not support the AEEC. JAL and ANA continue to support, but where are the Chinese, the Indian, the South American, even the non-Chinese Asian airlines (Qantas, Air New Zealand, Singapore, Cathy Pacific)? It would be great to have them.

- To me the greatest threat to AEEC is the lack of sufficient airline financial support. Financial support by being a paying member and active airline participation in working groups and subcommittees.

### **Changing Dynamics of the Aircraft Business**

- Airbus and Boeing expanding the SFE model on some aircraft, and limiting airline choices. The control of content, however, is still being underpinned by AEEC standards. Airbus and Boeing still need the AEEC standards in order for them to be able to issue RFI/RFP/RFQ for aircraft systems. They will continue to support AEEC development activities, it is in their best interest. When requests for proposals are issued by the OEMs they do and will always include basic AEEC standards, ex: A429 A653, A664, A658, A424, A453, A702, SATCOM, TCAS, Transponders, CVR/FDR, etc. Without industry participation, it would be impossible to develop, sustain complex interfaces and computing platforms. We still have hardware standards for TCAS, Transponders, FDR/CVR, Displays, CMU, etc. We have software and protocol standards, A653 APEX, A664 Ethernet, A618/619/620/758/658. We have galley standards, we have SATCOM standards, including new form factor antennas. The list goes on and on - AEEC standards are essential to be able to build aircraft.
- Though the dynamics of the way Airbus and Boeing are driving their business are changing, however, what continues to underpin aircraft system development is the AEEC standards. The need for AEEC standards won't be changing.

### **Changing Dynamics of the Airline Business**

- Consolidation, larger airlines, and fewer of them. Delta, American, United, Lufthansa, Air France KLM, etc. Consolidation has affected the AEEC the most. Just look at the composition of the AEEC Executive Committee. Look at the list from 5 or 10 years ago, to what it is today. So many legacy carriers are now missing: US Airways, Continental Airlines, Northwest Airlines, Iberia, BA, SAS, and others.
- I think the consolidation of airlines and the lack of getting new members, is in my opinion, the biggest threat to AEEC. We need active and supportive involvement from the airlines. We need strong and consistent financial support, we need strong support for membership in working groups and subcommittees. If the airlines won't support AEEC, then AEEC standards development will be driven by the manufacturers based upon what they need to build and support for their next aircraft programs and their business models. And frankly, this is very much what is happening today. Most of the APIMs are really being driven by what is needed to build the next generation of aircraft, or what is required to upgrade current aircraft to meet the new more complex operating environment.

If the airlines want to continue to be part of the solution, and have input into what technical and operational capability goes into aircraft, then they need to actively support the AEEC.

Regards,

Arnold