

AVT-144 Workshop Welcome Address on Behalf of AVT Panel

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Panel Members, distinguished guests, ladies and gentlemen, my name is Bob Hastings, the AVT Principal Panel Member for Canada and I am most pleased to welcome you to this NATO RTO AVT-144 Workshop, here in beautiful Vilnius, Lithuania. The title of the workshop is “Enhanced Aircraft Availability Through Advanced Maintenance Concepts and Technologies” and this is indeed a topic that is near and dear to my heart.

I spent 17 years in the Canadian Air Force as an aircraft maintenance engineer serving tours in both field and headquarters billets and have spent much of the subsequent 17 years working in aircraft maintenance systems related jobs ranging from research and development through aircraft maintenance technician training. I say this only to explain that I do understand in some small measure the challenges that you face today both in your air force operational environments as well as here in trying to address this broad and very critical aspect of our warfighting capability.

The systems and materials that we use have become much more reliable and that is a good thing, they have also, in many cases, become exceedingly expensive and that is a challenge to weapon system availability as pipeline costs and spares availability is necessarily restricted. We have ever increasing on-board data acquisition, manipulation and analysis systems horsepower and that is a good thing. We also have increasingly interdependent systems which while increasing system redundancy also make much more difficult the absolute root cause recognition of system dysfunction. For every advance there seems to be an offsetting challenge posed to aircraft designers and maintainers.

In the early 1980's the Canadian Air Force had a 50% no fault found occurrence rate for J85 engine fuel control systems. A decade later we had the same unsubstantiated or no fault found rejection rate on F404 fuel control units. The difference was that the J85 units cost about \$80,000 to buy and \$30,000 to overhaul whereas the F404 units cost almost \$500,000 to purchase and \$90,000 to overhaul. A new generation of systems and on-board diagnostics had been introduced yet few real benefits had been achieved. How much have things changed since then? And while we have ever increasing expectations for self-diagnostics please remember that we have to support legacy as well as new systems, we also have aircraft that are often increasingly being used in roles for which they were not originally designed. Aircraft availability, operational capability and reliability ... and lives saved, are the outcomes of improved maintenance concepts and practices. This is the complex environment with high risk and high potential for benefits in which you must do your magic.

I thank the organizers of this workshop for offering me the opportunity to say these few words. I also wish you success in this workshop and its activities and more so in the networks that are established in these fora and through which the greatest lasting benefits for participating nations are generated.

