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OFFICE OF THE SECRETARY

July 23, 2002

To Whom It May Concern:

These are the comments concerning the upcoming proposed implementation of RVSM for domestic airspace. The proposal date is December of 2004. I sincerely hope once the impact to our industry is considered that the date can be modified or eliminated.

The original concept of RVSM made a lot of sense. The available tracks over the North Atlantic were congested and it was common for carriers to not be able to get optimum altitudes. The addition of extra altitudes, made available by RVSM, solved much of this problem. This has created the impression that RVSM will solve other problems with congested airspace but I do not believe this is true. The North Atlantic tracks are a totally different environment than Domestic airspace. Most importantly there is no radar available. This requires more lateral separation and pilot position reporting to monitor separation. Most aircraft want to fly the same route direct between city pairs, i.e. New York to London. All aircraft are at cruising altitude for an extended period of time. In domestic airspace, radar is available universally in the flight levels. This allows ATC to provide separation by using short vectors effectively. The routes are much more varied and the duration at cruise altitude is much more varied. So far in domestic airspace we have had very few problems. Off route vectors are rare and usually of short duration. Any request for altitude change is usually granted immediately. At some time in the future, when terminal area congestion is cleared up and air traffic volume is much heavier, RVSM may be a solution. Why don't we wait until then? At this time, it makes as little sense as building more interstates across Kansas to solve freeway congestion in Los Angeles.

The impact on small charter operators like us has been grossly understated. We operate a Learjet 35, a very common aircraft for on demand charter. The total cost of installation and approval of the STC for RVSM is estimated at between \$170,000.00 - \$200,000.00 with 25 days of downtime. This figure represents approximately 10% of the value of our aircraft. It also represents a typical year's worth of net profit for the aircraft. If this is not seen as a substantial impact on our business, I can't imagine what would. We all know how hard the business climate in aviation has been the last two years. Our company has not applied for nor received any government assistance to help us survive, unlike the airline industry. All we ask is that the government does not enact any unnecessary and costly rule making that will threaten our survival.

It is possible that RVSM goals may be achievable with better, simpler and less costly technology. The Lear 35 required a static defect correction module during its original certification. It is quite possible that the altimeter system may perform within ICAO RVSM specifications with no modifications. It would be worth a test

flight in conjunction with a RVSM calibrated aircraft to find out. This process would not be inexpensive but would be much more affordable than the RVSM STC. Looking into the future it might make more sense in the long run to convert to GPS derived geometric altitude. Current FAR's will require us to install EGPWS by 2005. These units already have the ability to read out geometric altitude with very good accuracy. This eliminates all the possible barometric altimeter errors. I realize that such a change would be a large undertaking, but now might be the time to consider it before we invest a lot more money in a possibly outdated technology. The FAA has a bit of history of choosing the wrong technology for the future. We all remember MLS.

One of the remaining problems to deal with in the Lear 35 is the autopilot. Apparently with some modification to the static system and a perfectly tuned autopilot, it will meet the new standard for altitude hold. It will be a problem to keep this sort of performance over time. In proposing the RVSM FAR's, you have also affected the autopilot's FAR's. Currently we are required under 135 to have an operable autopilot on board for single pilot IFR passenger carrying operations. We are not required to use it, but makes good sense to have it for high workload situations. Aircraft with 2 pilots do not require an autopilot. The new FAR would not only require us to have it with 2 pilots but would require its use. I assume this means we no longer trust pilots to have the ability to hold altitude accurately while hand flying. The use of an autopilot should be a decision made by the pilot. Some pilots prefer to rely on the autopilot extensively while others use it only on occasion. I personally believe that our reliance on the autopilot degrades the pilot's ability to hand fly the aircraft. More importantly, their ability to recover an aircraft after an inadvertent autopilot disconnect has been a factor in several fatal airline accidents. I believe the autopilot requirements should be removed for the RVSM specifications and the pilot should assume the responsibility to monitor autopilot operation or hand fly to assure altitude accuracy.

As I am writing these comments, there is news of an ATC strike in Europe paralyzing air traffic. The news reports say the systems in Europe waste approximately 47 billion dollars per year in fuel and delays. They adopted the RVSM and predictably it did not solve their problems. Terminal congestion and uncoordinated ATC systems still plague Europe and extra flight levels have not helped.

Thank you for considering these comments and I hope we can come up with a solution that will benefit all concerned.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Schlarb". The signature is fluid and cursive, with a large initial "M" and "S".

Michael Schlarb