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# FUTURE REGIONAL/COMMUTER CHALLENGES

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Technological advances in the next ten years or so, as seen today, will represent a continuum of the steadily improving state of the art in all the major disciplines. While in the past there have been a number of step changes in technology, no known really large quantum jumps are envisioned at present which could be readily applied to short haul aircraft. The one exception in the field of aerodynamics might be the application of natural laminar flow on short haul and laminar flow control on long haul aircraft. Developments in the 1990's may introduce important constraints such as fuel conservation, noise, airspace and airport saturation and surface transportation competition. Therefore, the aim will be to single out some of the major areas where advances will contribute to overcoming these constraints. Developments to improve fuel usage and economy of operation are paramount, with major contributions coming from the engine and airframe and secondary contributions for systems and equipment.