Biojet is pleased to present its response to the request for proposal from the American Institute of Aerodynamics and Astronautics received on October 1, 2009. It calls for the development of a commercial airliner with a capacity of 175 passengers, entering service in 2020, primarily as a replacement for the Boeing 737/Airbus A320. This vehicle is in high demand as existing aircraft in this category were not designed from the ground up to utilize alternate fuels. The RFP requires a reduction in emissions and improved cost effectiveness for the operator, and Biojet provides those solutions. This aircraft will have a range of 3500 nm with lower fuel consumption than current aircraft. Our aircraft exceeds the design requirements by increasing L/Dmax by 30% as compared to current aircraft in its class. The aircraft’s cruising speed is Mach 0.8 as specified in the RFP. The aircraft has a balanced field length of 5930 ft and a landing speed of 124 knots. Additionally, the aircraft has an initial cruise altitude of 35,000 feet and a maximum cruising altitude of 43,000 feet. As an additional requirement, Biojet designed the aircraft to fit the class III gates that accommodate both the Boeing 737 and A320. The Biojet concept is a tube and wing design with a V-tail, which has been used in some aircraft but has not been used commercially. The concept is compared to the existing aircraft throughout the design and shows benefits in many areas. Biojet utilizes advanced technologies in the design ensuring that it fulfills the requirements of the RFP. These include the use of composite materials, advanced airfoil design, and advanced engine technologies. Biojet is proud to present the BC-175 as the next generation commercial airliner.