The NASA Fundamental Aeronautics Subsonics Fixed Wing and Supersonic Projects are conducting research to reduce emissions for both subsonic and potential supersonic aircraft. Reducing emissions from aircraft are critical in order to reduce the environmental impacts of aviation. Research objectives and plans for both of these projects will be presented. Highlights from some of the research areas will also be presented illustrating some of the research progress made to date. The research that NASA is also performing on Alternative Fuels for aircraft application will also be presented.