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Title : MULTIFUNCTION NOZZLES

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Author(s) : K.V.L. Rao, M.S. Chidananda,
B. Jagannatha RaoContents
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Abstract : The next generation of fighter engines planned for 1990's and beyond are expected to incorporate one or other variants of multifunction nozzles in place of simple axisymmetric nozzles employed hitherto. These advanced concept nozzles are required to have a continuously variable two-dimensional convergent-divergent configuration, capable of operating at maximum thrust efficiency at all conditions of engine operations. Besides, these nozzle configurations are required to permit thrust vectoring, thrust reversing and thrust monitoring at all modes of aircraft operations such as take-off, landing and combat flight. Further, these nozzles are required to be designed as an integral part of aircraft to fully exploit its multimode flight manoeuvring capabilities together with the low radar infrared signature, minimum drag and tolerable weight penalty.

This document gives the details of a project proposed to investigate and evaluate various configurations of nozzles of interest to fighter engine/aircraft design.

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