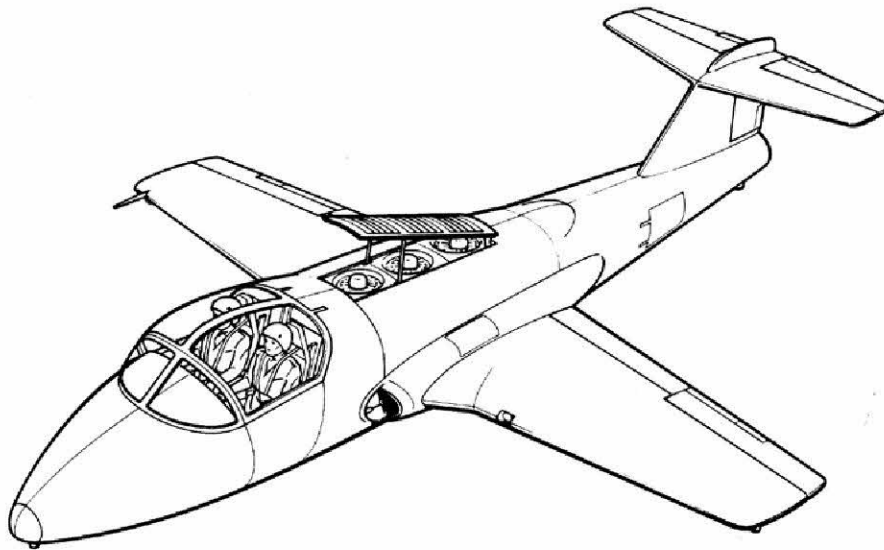


CL-41J VTOL Jet Trainer

In June 1961, preliminary studies were made by Canadair that were initially tailored to the NATO V/STOL Supersonic Ground-Strike and Reconnaissance aircraft concept, to determine the merits of a highly modified Canadair CL-41 aircraft design as a companion type VTOL jet trainer. The side-by-side seating configuration would provide an ideal and efficient instructional environment, as had been evident with the successful tests and demonstrations of the first prototype CL-41 aircraft.

With a standard Canadian Orenda-built J85-CAN-40 engine providing the forward propulsion, an additional three Rolls Royce RB162 direct-lift jet engines, mounted inline vertically behind the cockpit in a lengthened center fuselage, would have provided the VTOL capability for the proposed CL-41J. A louvered, forward opening air inlet door would be raised to a canted position for the direct-lift engines' operation during VTOL flight, then it would be retracted flush to the fuselage for the cruise portion of flight. A variable exhaust system on the underside of the aircraft would have controlled the vertical thrust vector. With four thirsty jet engines to feed, additional fuel would have been required and that would have possibly been made available by the addition of bladder tanks in the inboard sections of the wings and in the wing-to-fuselage side fairings. Jettisonable fuel tanks fitted to pylons under the wings would probably have been necessary for any type of a satisfactory training mission to be accomplished. It is not known how roll and yaw were to be controlled when the aircraft was to be operated in the VTOL regime. Pitch may have been controlled possibly by modulating the thrust of the forward and/or rear lift jet engines.



The proposed CL-41J VTOL Jet Trainer did not progress much beyond this artist's concept.