

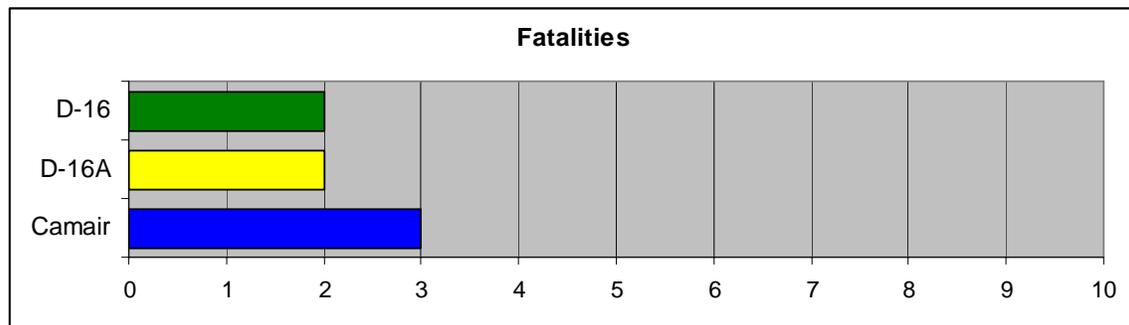
Twin Navion Accident History

Last updated: May 8, 2008

The following summary is based on US NTSB reports dating back to 1962. Accidents in Canada and Brazil have been added based on non-written records. Through the FAA records pertaining to each aircraft, it's possible to see indicators for additional (minor) accidents, however these have not been incorporated into this report.

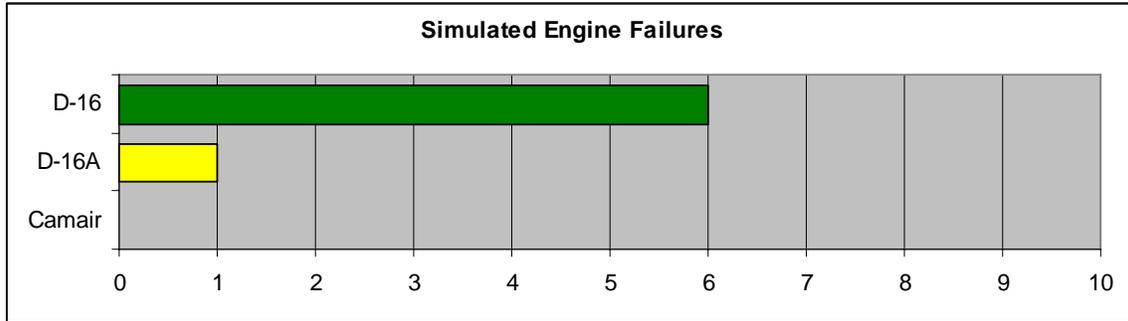
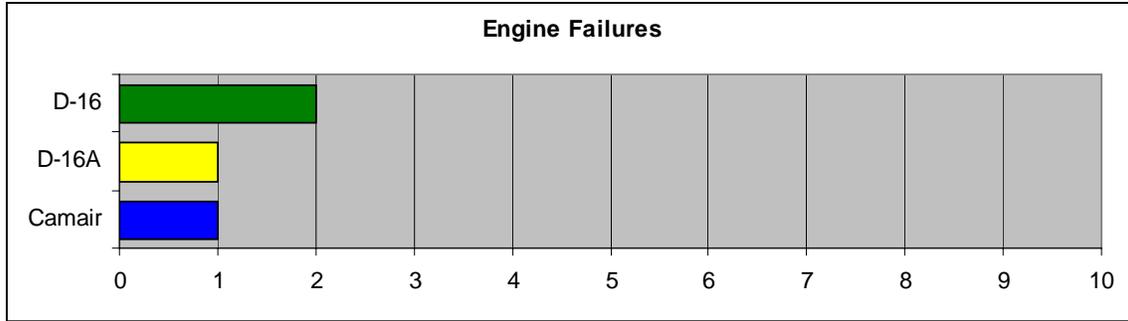
Between 1962 and 2008, there have been 60 accidents reported involving Twin Navions in Canada, Mexico and the United States. That's roughly 41% of the type's total production. Not surprisingly, most of the accidents have come from being a more advanced aircraft than a primary trainer, and one that could have as many as five fuel tanks. Simulated engine failures and landing gear collapses are the leading cause of accidents, and most of those are limited to the D-16s employed as trainers.

Like all twin engine aircraft, there a fair portion of accidents were caused by pilot error – either by attempting to fly beyond their abilities (flight into terrain during IFR conditions), or by exceeding the operating manual. As long as there's more than one fuel tank, there will always be instances of fuel starvation.

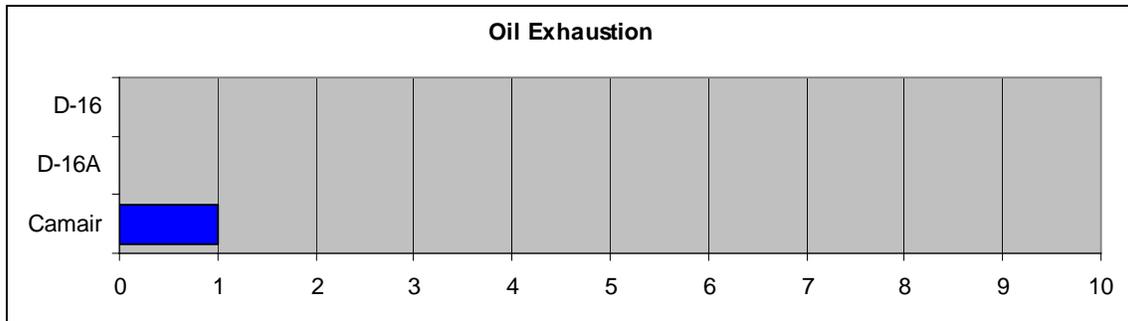
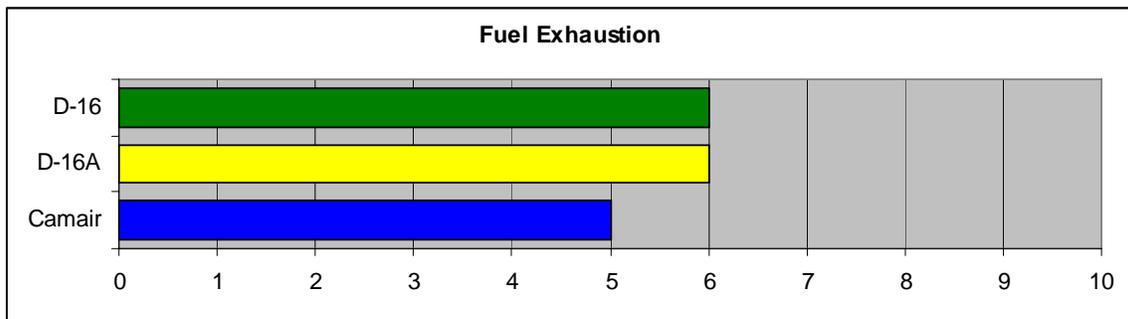


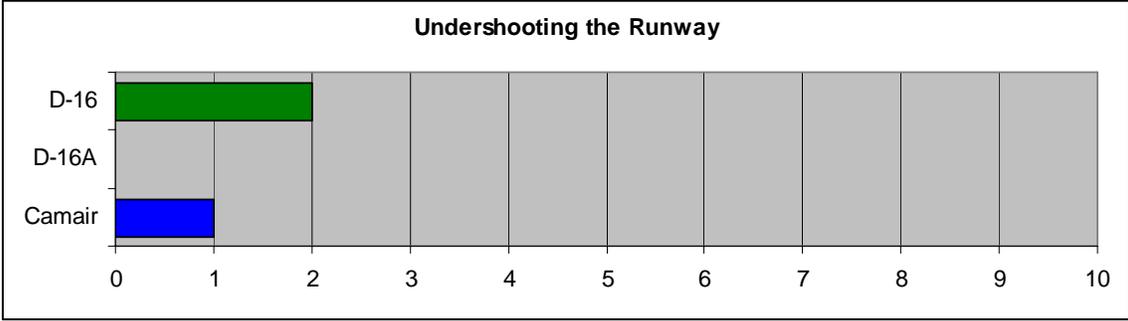
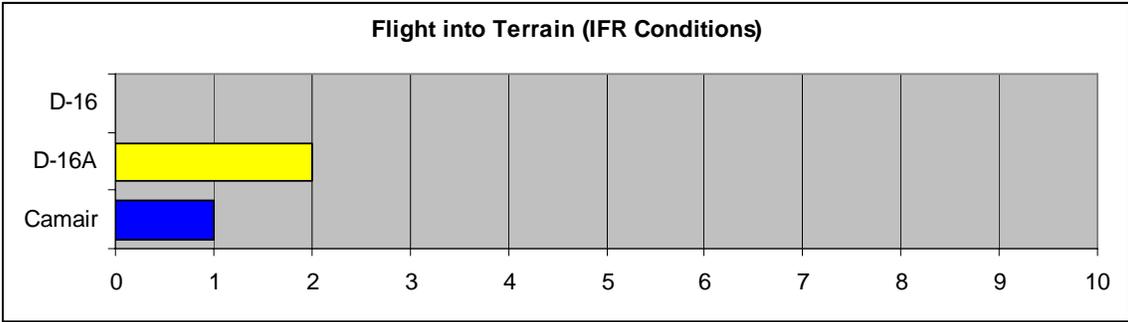
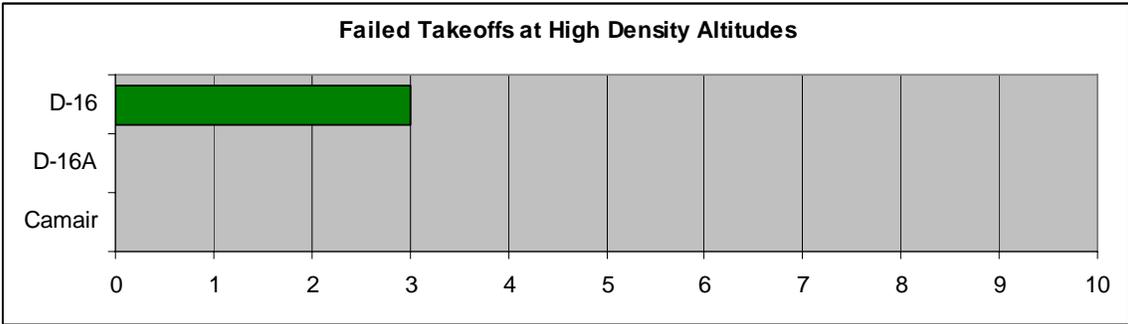
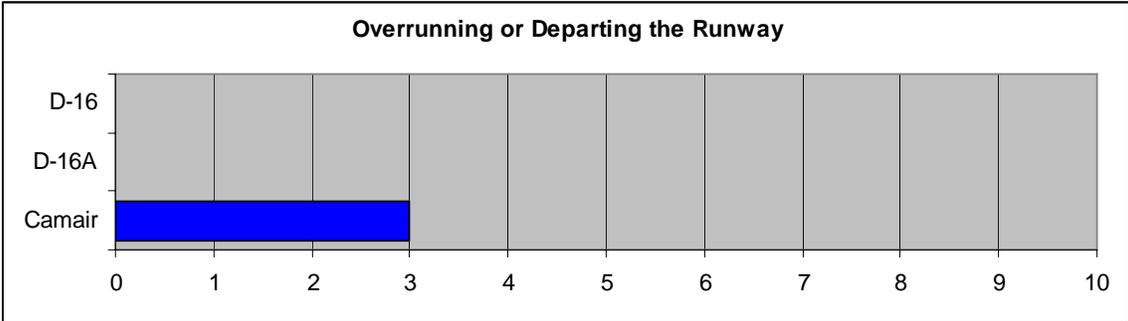
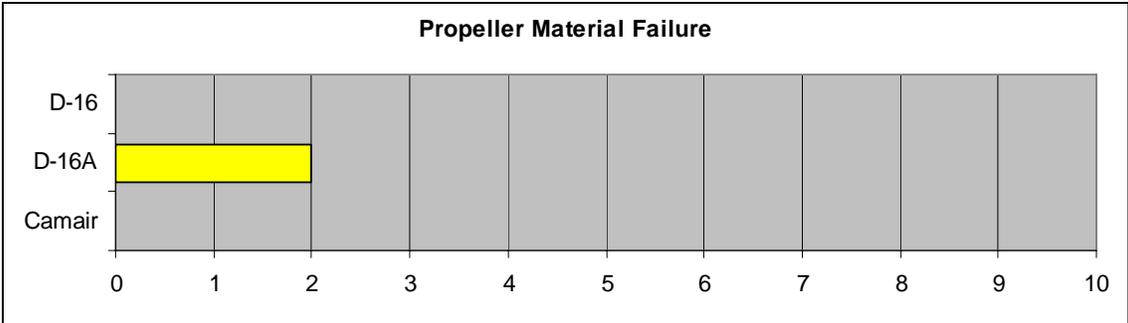
Despite the accident rate, it's worthy to mention that only six people have been killed in four accidents; fuel exhaustion (1 fatality), flight into terrain under IFR conditions (1 fatality), poor takeoff performance under high density altitude (2 fatalities) and a mechanical failure of the engine (2 fatalities).

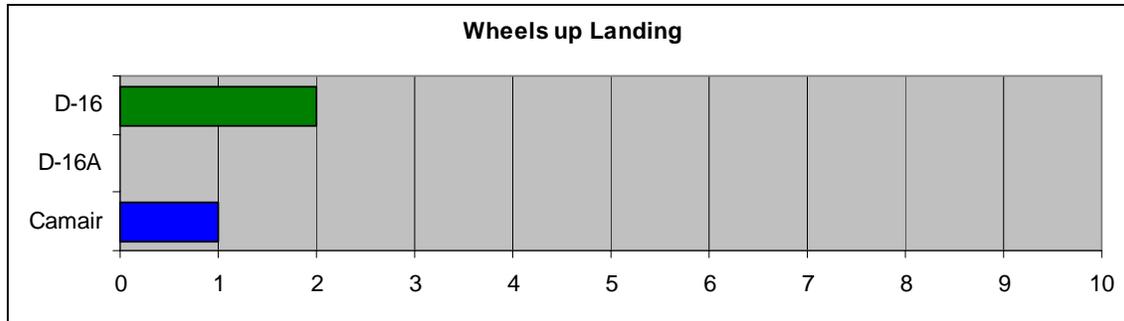
The only structural related issues with Twin Navions were caused by failure of the nose wheel fork, and these ended in non-fatal landing gear collapses.



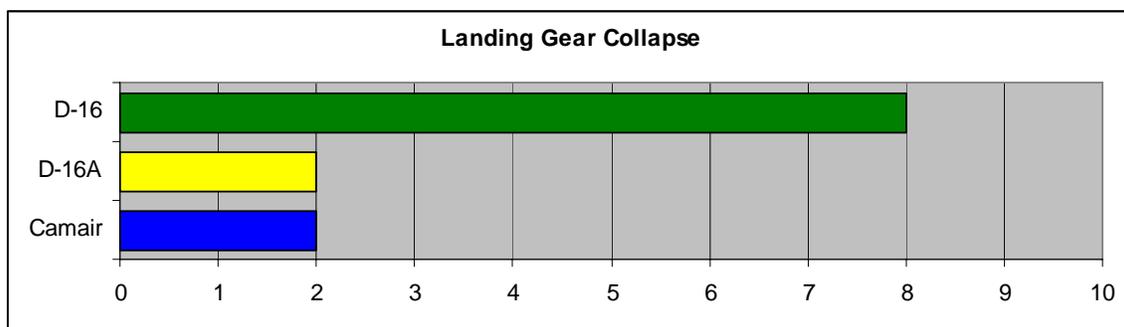
Accidents occurring during simulated engine failures appear high, and a major cause for this was linked back to the engine's starters. The starters originally installed were low-torque units, and routinely caused problems during starting. Combining this with the D-16's 150hp engines, a low service ceiling, and low pilot experience, and its easy to see why the D-16 is disproportionate compared to later D-16As and Camairs.



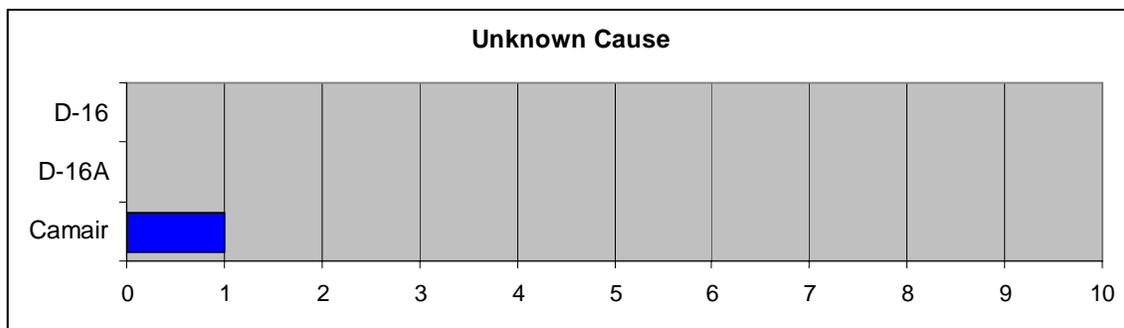




In several instances, engine failures have caused the pilot to chose a wheels-up landing, usually because of terrain. These accidents have been recorded as engine failures, not wheels-up landings.



An early problem with the entire Navion series, nose gear collapses have caused a lot of damage to the Twin Navion fleet. The root cause for many of these accidents was eventually discovered to be the hydraulic pump. The original single piston pump would literally beat itself off its mounts if left running for long periods. Checklists called for the hydraulic power to be turned on only while operating the landing gear or flaps, then turned off. This reduced wear on the pump and its mounts. Occasionally a weak down lock would be challenged by an uneven surface, and the gear would retract. The immediate solution in these cases was to leave the pump on while landing and taxiing. The later solution was to replace the single piston pump with a New York vane pump, which runs smooth and doesn't have the operating limits of the previous equipment.



March 8, 2007 – Camair N209 (1-055) crashed. As of May 2008, the NTSB has not released a report.