



ON TRACK



Articles of Interest for the Professional Aviator

ICP Flight - Central Flying School

Two-Way Communications Failure

Lately, I believe clarification may be required regarding two-way communications failure while on radar vectors. Specifically, the routing portion of the approach and interpretation of GPH 205 in relation to “radar required” approaches.

In general, two situations can occur for an aircraft being vectored for an approach to a facility. First, the aircraft is being vectored to a facility to which the aircraft can navigate on its own - with the available equipment on board. A typical ILS/DME approach where the aircraft is being vectored onto final for efficient flow or traffic purposes would be one example. This type of situation would account for almost all cases of vectored approaches, especially in Canada. The second situation is slightly different – the aircraft may have no ability or means of navigating itself onto the final portion of the approach and radar vectors are “*required*”, as stipulated on the approach plate for initial approach guidance. In any case, aircraft navigation is being provided by ATC, via radar vectors, for the “initial” segment of the approach. The ILS RWY 24R at Toronto/Lester B. Pearson Intl (GPH 200 Vol. II, Page 284) is a good example. ATC will provide the navigational guidance to place your aircraft on the correct localizer where you can then commence your final segment approach to landing. (If you are RNAV equipped - the initial segment may be completed with equipment on board). Two-way communication failures, in these two circumstances are treated slightly differently as laid out in GPH 205. In the first example, the following would apply: GPH 205, Emergency, Two Way Communications Failure, IFR Flight Plan 2(a)(ii) if being radar vectored, by the “*DIRECT*” route from the point of communications failure to the “fix”, “route”, or “airway” specified in the vector clearance. In our example of an ILS/DME approach, the vector clearance limit or fix is typically the NDB associated with the ILS approach. In most cases, it would be likely that the aircraft could, upon reaching the NDB (direct via self-navigation), could carry on with a “straight-in approach” (if expected) and land from that point. In the second case of the ILS RWY 24R in Toronto, our approach guidance for the initial portion of the approach cannot be accomplished without the assistance of ATC and radar vectors (or RNAV if equipped). If two-way communications is lost in this case, the aircraft must now resort to “*DEAD RECKONING*” (educated guessing) and the pilot is to self “guess” his aircraft’s path onto final. It is also stipulated in GPH 205, Emergency, IFR Flight Plan, Addition to Note 2, that the pilot is expected to dead reckon his aircraft’s path, without “undue manoeuvring”, for a “straight-in” approach and also consider other traffic and his position in relation to them and the approach “sequence”. (Do I hear one potato, two potatoes)? Two different situations, with two distinct

recovery procedures should a two-way communications failure occur while on radar vectors!