



MEMORANDUM FOR RECORD

Investigator: Brian C. Rayner
Senior Air Safety Investigator
Eastern Region

Date: January 21, 2017
Reference: Bill Gill – Honeywell Product Integrity
NTSB Accident Number: ERA16FA215 State College, PA

Mr. Gill was contacted by telephone, and then later through email correspondence regarding limitations of the King KFC 200 Autopilot System. During the course of the exchange, Mr. Gill contacted the company engineer who worked the certification of the system in the Piper PA-31 Navajo. The engineer was retired from Honeywell, but shared his recollections with Mr. Gill, who forwarded them by email. His recounting of that conversation is below:

The KFC 200 will capture the glideslope from above or below glideslope, provided the localizer is active and the glideslope valid signal is present. I spoke with the certification engineer (recently retired) that worked the certification of the KFC 200 in the Piper Navajo (PA-31) about the descent rate and glideslope capture from above. He indicated that 1000 feet/minute was normal, or perhaps optimal, to capture the glideslope from above. He indicated that if the aircraft's descent rate was 500'/minute at normal approach speed with no wind that the aircraft's descent path would be tend to parallel the glideslope; therefore, a steeper descent rate is required to converge onto the glideslope -- make sense? I hope this addresses your question regarding glideslope capture from above the glideslope. Please contact me should you require additional information.