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Dear Designated Pilot Examiner (DPE),

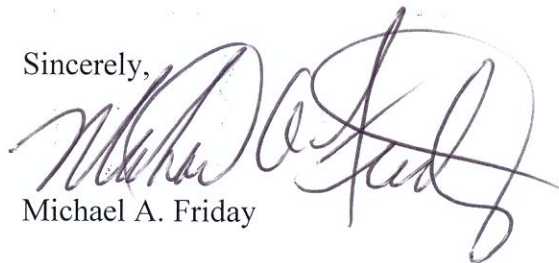
I am a Doctoral Candidate at Oklahoma State University's College of Education completing my dissertation in aviation studies. My dissertation is investigating the impact or potential impact on safety with the introduction of advanced technology in general aviation aircraft. These advances include entirely new designs for general aviation aircraft and the retrofit of advanced display technology in conventional aircraft.

Various organizations have speculated on the impact of this technology on the process for certifying/re-certifying our aviation professionals. Specifically, this research examines the pilot certification process from the Designated Pilot Examiner's perspective. Since you, the DPE, are the final step in the certification of new pilots it is imperative that your thoughts on the impact of this new technology be heard.

The attached questionnaire hopes to assess what changes are needed, if any, to the pilot certification process as a result of the new technology. Feel free to use the comment block to pass along other pertinent information on the topic not addressed directly by the questionnaire.

I can be reached at (405) 642-9535 or by email at Michael.Friday@okstate.edu. Thank you in advance for your participation!

Sincerely,



Michael A. Friday



**Informed Consent Document
(Questionnaire)**

Project Title: A Qualitative Study of Designated Pilot Examiners' Perceptions with Advanced Display Technology and Technically Advanced Aircraft

Investigator: Michael Friday, Doctoral Candidate, Oklahoma State University

Purpose: The purpose of this study is to investigate FAA Designated Pilot Examiners perception of the adequacy of the current process for certifying private pilots in Technically Advanced Aircraft or convention aircraft equipped with Advanced Display Technology. As key participant in this process, you are being asked to help us understand specific issues or concerns that you may have related to this new technology.

Procedures: A survey that should take approximately 30 minutes to complete has been included with this letter. Please complete the survey and return it in the stamped self addressed envelope that has been provided. The survey has some questions about your flight times and ratings, exposure and experiences with TAA and ADT, type and number of flight examinations given, and perception of the current pilot certification process.

Risks of Participation: There are no known risks associated with this project which are greater than those ordinarily encountered in daily life.

Benefits: It is expected that this research will gain valuable information from you that will help the industry improve the process for developing and certifying future aviation professionals.

Confidentiality: All information will be anonymous as no names or personal identification numbers will be recorded on the survey. All results will be reported as aggregated data and no individual responses will be reported. The OSU IRB has the authority to inspect consent records and data files to assure compliance with approved procedures.

Contacts: If you have any questions about the research or your rights as a participant in this study, please feel free to contact Michael Friday at (405) 642-9535 / Michael.Friday@okstate.edu or Dr. Steve Marks from Oklahoma State University at (405) 744- 7015 / steve.marks@okstate.edu. If you have questions about your rights as a research volunteer, you may contact Dr. Shelia Kennison, IRB Chair, 219 Cordell North, Stillwater, OK 74078, 405-744-3377 or irb@okstate.edu.

Participant Rights: Your participation in this research study is appreciated and completely voluntary. You may choose not to participate at any time without any penalty or problem.

Returning your completed questionnaire in the envelope provided indicates your willingness to participate in this research study.



Designated Pilot Examiner (DPE) Questionnaire

EXAMINER DEMOGRAPHICS

FLIGHT EXPERIENCE

What ratings & certificates do you hold? (check all that apply) Commercial ATP Instruments CFI CFII
 Multi-Eng Inst

Flight Time Estimates	Total Hours	Hours Last Twelve months?
• Civilian		
• Military		
• VFR		
• IFR		

EXAMINER QUALIFICATIONS

What types of practical tests are you designated to perform? Private Commercial ATP Instruments
 CFI CFII Multi-Eng Inst
 Airplane Helicopter other aircraft

How many years have you been a DPE? _____ YEARS

In the last 12 months, how many Practical Tests (PTs) have you given? _____

In the past 12 months, how many Practical Tests (PTs) were performed in TAA or Advanced Display Technology equipped aircraft? _____

ADVANCE TECHNOLOGY EXPERIENCE

What GA Advanced Display Technology equipment have you flown as Pilot-in-Command (PIC)? (check all that apply) Aspen Avidyne Bendix/King Chelton Collins
 Garmin Other _____

TAA Experience	Model --If other please fill in.	Do you Maintain Proficiency?	Hours Flown in past 12 months?
What General Aviation Technically Advanced Aircraft (TAA) have you flown as Pilot-in-Command (PIC)? (check all that apply)	<input type="checkbox"/> Adam	<input type="checkbox"/> Yes	
	<input type="checkbox"/> ATG	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Cessna Skycatcher	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Cirrus	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Columbia	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Diamond	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Symphony	<input type="checkbox"/> Yes	
	<input type="checkbox"/> Other _____	<input type="checkbox"/> Yes	

EXAMINER'S PERCEPTIONS

FAA GUIDANCE & REGULATIONS

I am satisfied with the current FAA guidance and regulations for certificating new Airmen in Advanced Display Technology equipped aircraft.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Private pilot licenses should specify either traditional or Advanced Display Technology equipped aircraft.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Flight instructor sign-off should be required for Advanced Display Technology equipped aircraft similar to a complex endorsement.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Flight instructor sign-offs for Advanced Display Technology be model or series specific.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
FAA written policy and guidance is <u>adequate</u> regarding "pilot experience requirements" with Advanced Display Technology	<input type="checkbox"/> Yes	<input type="checkbox"/> No
FAA written policy and guidance is <u>adequate</u> regarding " practical tests requirements" with Advanced Display Technology	<input type="checkbox"/> Yes	<input type="checkbox"/> No
FAA written policy and guidance is <u>adequate</u> regarding " pilot knowledge requirements" with Advanced Display Technology	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Have you ever requested local FSDO support concerning performing Practical Test (PT) with Advanced Display Technology?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

SAFETY

Advanced Display Technology has degraded "conventional navigation skills", such as dead reckoning, pilotage, and NAVAID navigation.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Advanced Display Technology equipment has changed the pre-flight planning process with respect to navigation, weather, and terrain/obstacles en route.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Has Advanced Display Technology ever alerted you to a potential conflict with weather, traffic, or terrain that would likely have otherwise gone unnoticed or created an unsafe condition?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Has Advanced Display Technology ever alerted you to a navigation error or failed to alert you? (check all that apply)	<input type="checkbox"/> Alerted	<input type="checkbox"/> Failed to Alert
Has Advanced Display Technology ever helped you or hampered you in any potentially serious situation? (check all that apply)	<input type="checkbox"/> Helped	<input type="checkbox"/> Hampered
Have you ever experienced a situation in which the automation did less or more than you expected? (check all that apply)	<input type="checkbox"/> Less than expected	<input type="checkbox"/> More than expected
In your opinion, what effect has Advanced Display Technology equipment had on risk-taking behavior? (check all that apply)	<input type="checkbox"/> Fly in lower visibility <input type="checkbox"/> Fly in other hazardous weather <input type="checkbox"/> Fly at lower altitude <input type="checkbox"/> Fly closer to hazardous terrain <input type="checkbox"/> Fly closer to other aircraft <input type="checkbox"/> No effect	
Should the FAA require more standardization of Advanced Display Technology with respect to display formats and functionality?	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Returning this questionnaire in the envelop provided indicates your willingness to participate in this research study.

PILOT APPLICANT KNOWLEDGE & TRAINING		
FAA training requirements are adequate for certifying a private pilot in Advanced Display Technology.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Instructors are adequately preparing "first-time" Private Pilot applicants for their Practical Test (PT) in Advanced Display Technology equipped aircraft.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Existing off-the-shelf training materials are adequate for training with Advanced Display Technology.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
More emphasis should be placed on "higher order pilot skills" , to include risk management, single pilot resource management, and automation management.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
PRACTICAL TEST		
Practical Tests should be based upon the type of technology flown (traditional steam gauges or Advanced Display Technology).	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Flight reviews should be taken in the type of technology flown.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Have you ever been required to demonstrate specific features or tasks associated with Advanced Display Technology during an FAA flight check?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Do you require demonstration of specific features or tasks associated with Advanced Display Technology during a Practical Test (PT)?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
During the Practical Test (PT), there are tasks or procedures that are difficult to perform/demonstrate in Advanced Display Technology equipped aircraft.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
A procedural simulator or aircraft simulator would be more suitable for demonstrating certain features or tasks with advanced avionics.	<input type="checkbox"/> Yes	<input type="checkbox"/> No
EXAMINER TRAINING		
What specific training, if any, did you have for preparation to fly TAA and/or Advanced Display Technology? (check all that apply)	<input type="checkbox"/> Aircraft Manufacturer Training Course <input type="checkbox"/> Avionics Manufacturer Training Course <input type="checkbox"/> 3rd party Training or Computer Based Training Software <input type="checkbox"/> Self taught w/equipment manuals <input type="checkbox"/> Other _____	
In retrospect, do you feel this training adequately prepared you for performing PT in Advanced Display Technology equipped aircraft?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Should the FAA provide specific TAA/Advanced Display Technology evaluation training to DPEs?	<input type="checkbox"/> Yes	<input type="checkbox"/> No
REMARKS		
Please provide any additional comments or recommendations for improving the process for training and certifying pilots with Advanced Display Technology:		

Returning this questionnaire in the envelop provided indicates your willingness to participate in this research study.

INTERVIEW

Would you be willing to participate in a follow-up telephone interview, if selected?

Yes No

RESULTS

If you are interested in receiving an email copy of the summary results of this research, please provide an email address: