



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Washington, DC

MEDICAL FACTUAL REPORT

March 19, 2019

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Medical Officer

A. ACCIDENT -WPR18FA075- Concord, California

On January 29, 2018, about 0945 Pacific standard time, a Cessna 152, N93316, impacted terrain near the Military Ocean Terminal Concord facility, on the Navy Base Realignment and Closure (BRAC) property, Concord, California. The Airline Transport pilot was fatally injured. The airplane was registered to and operated by the pilot as a 14 *Code of Federal Regulations* Part 91 personal flight. Visual meteorological conditions prevailed for the flight and no flight plan had been filed. The flight originated from the Buchanan Field Airport (CCR) Concord, California, about 0937.

B. GROUP IDENTIFICATION:

No group was formed for the medical evaluation in this accident.

C. DETAILS OF INVESTIGATION

Purpose

This investigation was performed to evaluate the pilot for medical conditions, the use of medications/illicit drugs, and the presence of toxins.

Methods

The FAA medical case review, pilot's FAA medical certification, airman information files, and BasicMed Information, BasicMed examining physician records, FAA Bioaeronautical Sciences Research Laboratory toxicology report, autopsy report, and personal medical records were reviewed. Other pertinent scientific and regulatory issues were reviewed.

FAA Medical Case Review and FAA Medical Certification File

According to the FAA records, at the time of his most recent FAA medical certification exam, dated May 23, 2016, the 69-year-old male pilot was 71 inches tall, weighed 179 pounds, and reported he had accrued 3,040 total flight hours. The pilot had a history of coronary artery disease with 90 percent occlusion of the right coronary artery treated with a stent in 2004. At that time, he also had a totally occluded circumflex artery branch that could not be opened. The pilot's heart condition had been followed annually by the FAA with periodic stress tests. His latest examination in May 2016 found no other disqualifying issues. At his last exam, he reported using aspirin, the lipid lowering medicine atorvastatin, and the blood pressure

medications lisinopril and metoprolol. Following review of the May 2016 physical examination and cardiology evaluation, the FAA renewed his authorization for special issuance on June 14, 2016. He was issued a time limited third class medical certificate with a limitation that the pilot must have available glasses for near vision. The certificate was not valid for any class after May 31, 2017.

FAA Pilot Certification Records

According to FAA pilot certification records, the pilot completed his BasicMed online course on July 16, 2017. As part of his application, he documented he had been seen and examined by a state licensed physician and on May 12, 2017 the examining physician had signed a declaration stating "I certify that I discussed all items on this checklist with the individual during my examination, discussed any medications the individual is taking that could interfere with their ability to safely operate an aircraft or motor vehicle, and performed an examination that included all of the items on this checklist. I certify that I am not aware of any medical condition that, as presently treated, could interfere with the individual's ability to safely operate an aircraft." (Attachment 1- Blank FAA 8700-2)

Records obtained from the physician the pilot had reported was his BasicMed examining physician contained no evidence that the pilot had been seen for a BasicMed examination. Additionally, the office staff said they had no appointment records of a visit by the accident pilot on the reported date. Finally, the investigation was unable to locate the physician signed FAA 8700-2 Comprehensive Medical Examination Checklist (04-17).

Autopsy

The Contra Costa County Coroner's autopsy documented the cause of death was multiple blunt force injuries and the manner was accident. The 177 pound pilot had moderate to severe atherosclerotic coronary artery disease. His left anterior descending coronary artery had approximately 30% stenosis while the right coronary artery had approximately 50% stenosis. The proximal circumflex vessel had approximately 25% stenosis and the distal circumflex artery was totally occluded (100%) by plaque. The posterior wall of the left ventricle had a transmural myocardial scar (9 x 3 cm) extending from near the cardiac apex to the atrial ventricular sulcus. The transmural scar had dense white fibrotic tissue and was consistent with an old healed infarct (heart attack). Additionally, away from the major posterior wall scar, other non-transmural scars ranged in diameter from 1 to 3 mm and were identified and determined by the pathologist to be consistent with recurrent ischemia (impaired blood flow to the heart muscle). However, there were no acute (new or recent) infarcts seen.

Toxicology

NMS Laboratory toxicology testing of cavity blood conducted as part of the autopsy was negative for drugs of abuse or alcohol.¹ Testing detected the antidepressant bupropion and its metabolite hydroxybupropion at 0.076 µg/ml and 0.160 µg/ml, respectively.

FAA Bioaeronautical Sciences Research Laboratory toxicology testing did not detect ethanol or carbon monoxide. The following drugs were detected: bupropion and its metabolite hydroxybupropion in liver and cavity blood (0.086 µg/ml and 0.197 µg/ml respectively);

¹ NMS labs tested cavity blood for amphetamines, anticonvulsants, antidepressants, antihistamines, antipsychotic agents, benzodiazepines, CNS stimulants, cocaine and metabolites, hallucinogens, hypnotics, hypoglycemics, muscle relaxants, non-steroidal anti-inflammatory agents, opiates/opioids, acetone, ethanol, isopropanol, and methanol.

cetirizine at 0.011 µg/ml in cavity blood; and metoprolol and atorvastatin in blood and liver. Metoprolol and atorvastatin are generally not considered to be sedating or impairing.²

Description of Identified Psychoactive Drugs

Bupropion is an antidepressant used to treat depression and help patients quit smoking, often marketed with the names Wellbutrin and Zyban.³ It carries two warnings: 1) a dose dependent risk of seizures; and 2) may impair mental and/or physical ability required for the performance of potentially hazardous tasks (e.g., driving, operating heavy machinery).⁴ Bupropion's half-life ranges from 4 to 24 hours, it is transformed to a less active metabolite hydroxybupropion. In depressed patients, the maximum improvement in symptoms occurs at plasma levels between 0.050 and 0.100 µg/ml.⁵

Cetirizine is a sedating antihistamine available over the counter and by prescription, often marketed with the name Zyrtec. It is also the active metabolite of hydroxyzine. It carries this warning for patients, "When using this product, drowsiness may occur, avoid alcoholic drinks, alcohol, sedatives, and tranquilizers may increase drowsiness, and be careful when driving a motor vehicle or operating machinery."⁶ The dose dependent accepted therapeutic blood levels range is from 0.170 to 1.45 µg/ml.⁷

Personal Medical Records

Primary care, cardiology, and emergency department, and psychiatric records from February 2016 until January 23, 2018 were reviewed. The pilot's ongoing medical issues included: coronary artery disease treated in 2004 with a stent and aspirin for anticoagulation; elevated cholesterol treated with the lipid lowering medicine atorvastatin; elevated blood pressure treated with lisinopril and metoprolol; and chronic pain from remote back injury and a ten year history of low dose opioids for pain control. His last cardiologist note in May 2016 documented the pilot was doing well with current treatment.

Finally, the pilot had an anxiety and adjustment disorder first documented in 2016 and treated initially with various antihistamines, antidepressants, and benzodiazepine medications. He was evaluated on January 23, 2018 (six days before the crash) in an emergency department for worsening anxiety. The examining psychiatrist found him to be anxious without suicidal ideations or plans. While he had a logical thought process, he was determined to have marginal impulse control, insight and judgment. He was referred to his personal psychiatrist, started on

² The FAA Bioaeronautical Sciences Research laboratory tests for more than 1300 substances including toxins, common prescription and over-the-counter medications as well as illicit drugs. See: <http://jag.cami.jccbi.gov/toxicology/default.asp?offset=0> for a complete listing. At the time testing the laboratory did not test for vilazodone

³ National Institutes of Health. US National Library of Medicine. *DailyMed*. 2019. Bupropion. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=bff74476-f633-4048-bb11-3af93950c54c> Accessed 3/6/2019.

⁴ Federal Aviation Administration. Forensic Toxicology Drug Information. Bupropion. <http://jag.cami.jccbi.gov/toxicology/DrugDetail.asp?did=20> Accessed 3/6/2019.

⁵ Baselt RC Disposition of Toxic Drugs and Chemicals in Man, 11th Edition. Bupropion. Pages 307-310 Copyright 2017, Biomedical Publications, Seal Beach, California.

⁶ National Institutes of Health. US National Library of Medicine. *DailyMed*. 2018 Cetirizine. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=a5be7921-c1cb-4b9f-9f4a-1c4b68b2b8a3> Accessed 12/17/2018.

⁷ Baselt RC Disposition of Toxic Drugs and Chemicals in Man, 11th Edition. Cetirizine. Pages 414-415. Copyright 2017, Biomedical Publications, Seal Beach, California.

pregabalin for anxiety, and instructed to continue the antidepressants bupropion and vilazodone.^{8,9}

His last documented health care provider visit on January 25, 2018 (four days before the crash) was a follow up evaluation by the pilot's personal psychiatrist after the emergency room visit. The pilot denied passive death wish or suicidal ideation and there was no evidence of paranoia or delusions. However, the pilot describes his mood as "just a mess" and was assessed as "rather anxious."

D. SUMMARY OF MEDICAL FINDINGS

The 69-year-old male pilot had a history of high blood pressure controlled with lisinopril and metoprolol, elevated cholesterol treated with atorvastatin, and coronary artery disease with 90 percent occlusion of the right coronary artery treated with a stent in 2004 and daily anticoagulation with aspirin. He also had a totally occluded circumflex artery branch that could not be opened. The pilot's heart condition had been followed annually by the FAA with periodic stress tests until 2016. However, his medical certificate had expired.

Despite reporting on his online application for BasicMed that on May 12, 2017 a physician had found no conditions that would interfere with his ability to safely operate an aircraft; this investigation could find no evidence of such an examination by a state licensed physician to support his operation of an airplane under a BasicMed certificate.

The Contra Costa County Coroner's autopsy documented the cause of death was multiple blunt force injuries and the manner was accident. His left anterior descending coronary artery had approximately 30% stenosis while the right coronary artery had approximately 50% stenosis. The proximal circumflex vessel had approximately 25% stenosis and the distal circumflex artery was totally occluded (100%) by plaque. Additionally, there was evidence of a large 9 by 3 cm area transmural scarring in the left ventricular wall. Additionally, multiple small areas of non-transmural scarring in the posterior ventricular wall were found indicating recurrent ischemia (muscle damage due to lack of blood flow). However, there was no evidence of a recent ischemic event.

Toxicology testing by two laboratories identified the antidepressant bupropion and its metabolite hydroxybupropion with levels measuring from 0.076 to 0.086 ug/ml and 0.160 to 0.197 ug/ml respectively. The sedating antihistamine cetirizine was detected in cavity blood at .011 ug/ml. Finally, the blood pressure medicine metoprolol and cholesterol medicine atorvastatin were detected. These medications are generally not considered to be sedating or impairing.

In addition to the pilot's known medical conditions, personal health records documented multiple health care visits for anxiety. He was treated in an emergency room six days before the accident for an exacerbation of anxiety. The examining psychiatrist documented severe anxiety without suicidal ideations or plans. While he had a logical thought process, he was determined to have marginal impulse control, insight, and judgment. He was started on pregabalin for anxiety, instructed to continue the antidepressants bupropion and vilazodone. During a follow up evaluation four days before the accident by the pilot's personal psychiatrist, the pilot denied passive death wish or suicidal ideations and there was no evidence of paranoia or delusions. However, the pilot describes his mood as "just a mess" and was assessed as "rather anxious."

⁸ Baldwin DS and Ajel K; Role of pregabalin in the treatment of generalized anxiety disorder, *Neuropsychiatric Disease and Treatment* 2007;3(2)

⁹ National Institutes of Health. US National Library of Medicine. *DailyMed*. 2018. Vilazodone. <https://dailymed.nlm.nih.gov/dailymed/drugInfo.cfm?setid=4c55ccfb-c4cf-11df-851a-0800200c9a66> Accessed 03/04/2019

SECTION 1 – Instructions to the Individual and State-Licensed Physician

This checklist is to be used by individuals seeking to operate certain small aircraft in accordance with Title 14 of Code of the Federal Regulations (14 CFR), § 61.113(i). This rule (BasicMed) allows pilots to use this checklist, and other requirements, in lieu of holding a third-class FAA Airman Medical Certificate. Under BasicMed, an individual may only act as pilot-in-command (PIC) of an aircraft that is authorized to carry not more than 6 occupants, and that has a maximum certificated takeoff weight of not more than 6,000 pounds.

1. The individual must complete SECTION 2 of this checklist and provide the checklist in its entirety (including the completed SECTION 2) to the state-licensed physician performing the medical examination.
2. The state-licensed physician must perform a comprehensive medical examination addressing all items in SECTION 3 of this checklist. The physician completes the "Physician's Signature and Declaration" if the physician determines that he/she is not aware of any medical condition that, as presently treated, could interfere with the individual's ability to safely operate an aircraft.
3. The completed checklist shall be retained in the individual's logbook (in any legible paper or electronic format) and made available on request.
4. In order to act as PIC under BasicMed, an individual must receive a comprehensive medical examination by a state-licensed physician during the previous 48 months in accordance with 14 CFR 61.23(c)(3)(i).

Comprehensive Medical Examination Checklist

NOTICE: Whoever in any matter within the jurisdiction of any department or agency of the United States knowingly and willingly falsifies, conceals or covers up by any trick, scheme, or device a material fact, or who makes any false, fictitious or fraudulent statements or representations, or entry, may be fined up to \$250,000 or imprisoned not more than 5 years, or both. (18 U.S.C. Secs. 1001; 3571)

Paperwork Reduction Act Statement:

The information collection is conducted in accordance with the requirements of 44 USC § 3507, as amended by section 2 of the Paperwork Reduction Act of 1995. The information collected on this form is necessary to determine eligibility to exercise pilot privileges under BasicMed and is consistent with the FAA's authority to regulate and promote safety in air commerce under 49 USC 44701; see also the Federal Aviation Administration Extension, Safety, and Security Act of 2016, Pub. L. 114-190 § 2307, Medical Certification of Certain Small Aircraft Pilots. The FAA estimated that it will take each user 0.5 hours per user to complete the BasicMed Comprehensive Medical Examination Checklist. The information is required to be eligible to exercise pilot privileges under BasicMed. Note that an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The control number for this collection of information is 2120-0770.

SECTION 2 – Information to be completed by the Airman

To operate an aircraft under BasicMed, you may only use this checklist to comply with 14 CFR 61.113(i) if you:

- Hold or have held a valid first-, second-, or third-class medical certificate issued by the FAA at any time after July 14, 2006; and
- The most recent medical certificate held (including an authorization for a special issuance certificate) must have not been denied, suspended, revoked, or withdrawn.

INSTRUCTIONS: After completing all mandatory fields in SECTION 2, provide both SECTION 2 and SECTION 3 to the state-licensed physician who will perform your medical examination.

1. **OMITTED:** Leave blank
2. **OMITTED:** Leave blank
3. **FULL NAME:** List current name. List any former name(s) in the “additional comments or explanation” box found in #18 of the checklist form.
4. **SOCIAL SECURITY NUMBER:** Entry is optional.
5. **ADDRESS:** Enter permanent mailing address and country of residence. Include the nine digit ZIP code, if known. (e.g., 20003-3230). Provide your current telephone number, including area code.
6. **DATE OF BIRTH:** List month, day, and year (e.g., 01/31/1960). **COUNTRY OF CITIZENSHIP:** Enter citizenship (e.g., USA).
7. **COLOR OF HAIR:** Specify as black, blond, brown, gray, red, or bald.
8. **COLOR OF EYES:** Specify actual (not contact lenses) eye color as black, blue, brown, green, gray, or hazel.
9. **SEX:** Indicate male or female.
10. **TYPE OF AIRMAN CERTIFICATE(S) YOU HOLD:** Select the checkboxes that apply. If "Other" is selected, write in the name of the type of certificate.
11. **OCCUPATION:** Enter major employment. Entry is optional.
12. **EMPLOYER:** Enter your employer. Entry is optional.
13. **HAS YOUR FAA AIRMAN MEDICAL CERTIFICATE EVER BEEN DENIED, SUSPENDED, REVOKED, OR WITHDRAWN:** Select "Yes" or "No." If "Yes" is selected, list the month and year (e.g., 01/1999) of the action.
14. **OMITTED:** Leave blank
15. **OMITTED:** Leave blank
16. **DATE OF LAST FAA MEDICAL APPLICATION:** Enter month and year. If you have no prior application, you cannot use BasicMed.
17. **a. DO YOU CURRENTLY USE ANY MEDICATION (prescription or non-prescription):** Select "Yes" or "No." If "Yes" is selected, enter the name of the medication(s), dosage, and frequency used.
b. DO YOU EVER USE NEAR VISION CONTACT LENSES WHILE FLYING: Select “Yes” or “No.”
 Example: If you have one contact that is calibrated to give you near vision and one that is calibrated to give you distant vision, check “Yes.” If you wear a contact in only one eye to correct for near vision, check “Yes.”
18. **a – x. MEDICAL HISTORY:** Select “Yes” or “No” for each item listed. For every condition you have ever been diagnosed with, had, or presently have, you must answer "Yes." Give the approximate date, description of the condition, its severity, treatment, and any medication(s) you used or continue to use for treatment. You must give an explanation for each item marked “Yes” in the “additional comments or explanation” box.
 - Do not report common, occasional illnesses such as colds or sore throats.
 - “Substances” include alcohol, PCP, marijuana, cocaine, amphetamines, barbiturates, opiates, and other psychoactive chemicals.

Comprehensive Medical Examination Checklist

- "Substance dependence" is defined by any of the following: increased tolerance, withdrawal symptoms, impaired control of use, or continued use despite damage to health, or impairment of social, personal, or occupational functioning.
- "Substance abuse" is defined as the following: use of an illegal substance, use of a substance or substances in situations in which such use is physically hazardous, or misuse of a substance when such misuse has impaired health or social or occupational functioning.

18. v. CONVICTION, AND/OR ADMINISTRATIVE ACTION HISTORY:

(1) Have you ever been convicted (which may include paying a fine or forfeiting bond or collateral) of an offense involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug;

or

(2) Have you ever been convicted, and/or subject to an administrative action by a state or other jurisdiction for an offense for which your driver's license was denied, suspended, cancelled, or revoked or which resulted in attendance at an educational or rehabilitation program? Individual traffic convictions are not required to be reported if they did not involve alcohol/drugs, suspension, revocation, cancellation, or denial of driving privileges, or attendance at an educational or rehabilitation program. If "Yes" is checked, you must give a description of the conviction(s) and/or administrative action(s) in the "additional comments or explanation" box. The description must include:

- The alcohol or drug offense for which you were arrested and/or convicted or the type of administrative action involved (e.g., attendance at an alcohol treatment program in lieu of conviction; license denial, suspension, cancellation, or revocation for refusal to be tested; educational safe driving program for multiple speeding convictions, etc.);
- The name of the state or other jurisdiction involved; and
- The date of the conviction(s) and/or administrative action(s). The FAA may check state motor vehicle driving licensing records to verify your responses.

18. w. HISTORY OF NON-TRAFFIC CONVICTIONS(S) (MISDEANORS OR FELONIES): Have you ever had any other (non-traffic) convictions (e.g., assault, battery, public intoxication, robbery, etc.)? If so, name the charge for which you were convicted and the date of conviction in the "additional comments or explanation" box.

19. VISITS TO HEALTH PROFESSIONAL WITHIN LAST 3 YEARS:

List all visits in the last 3 years to a physician, physician assistant, nurse practitioner, psychologist, clinical social worker, or substance abuse specialist for treatment, examination, or medical/mental evaluation. List visits for counseling only if it was related to a personal substance abuse or psychiatric condition.

Enter the date of visit as month and year (e.g., 01/1990), name, address, and type of health professional consulted and briefly state reason for consultation. Repeat this process to add all relevant visits to medical professionals in the past 3 years. Multiple visits to one health professional for the same condition may be grouped together on one line. You do not need to report:

- o Occasional common illnesses such as colds or sore throats that resolved;
- o Routine dental, eye, and FAA periodic medical examinations; or
- o Consultations with your employer-sponsored employee assistance program (EAP) unless the consultations were for substance abuse or unless the consultations resulted in referral for psychiatric evaluation or treatment.

NOTE: After completing SECTION 2, carefully review and read the affirmation statements under the "Airman's Signature and Declarations." If you agree with the statements, sign and date the document. Once you have completed, signed, and dated SECTION 2, you must provide ALL sections (SECTION 1-3) of this checklist to the state-licensed physician who will perform and complete the comprehensive medical examination, as required by Section 2307(a)(7) of FAA Extension, Safety, and Security Act of 2016 (FESSA).

Comprehensive Medical Examination Checklist

BASICMED SECTION 2: INDIVIDUAL INFORMATION

(To be completed by the airman)

Form approved OMB No: 2120-0770
Expires: 04/30/2020

1-2	Omitted			
3	Name: Last:	First:	Middle:	4 SS # (optional)
5	Address/street:		Telephone:	
	City	State/Country	Zip Code:	
6.	Date of birth:	Country of Citizenship:		
7	Color of hair:	8 Color of eyes:	9	Sex:
10	Type of airman certificate(s) you hold:	☐ Airline Transport ☐ ATC Specialist ☐ Commercial ☐ Flight Engineer ☐ Flight Instructor ☐ Flight Navigator ☐ Private ☐ Recreational ☐ Student ☐ None ☐ Other _____		
11	Occupation (optional):		12 Employer (optional):	
13	Has your FAA Airman Medical Certificate ever been denied, suspended, revoked, or withdrawn?	☐ No ☐ Yes If yes, give date _____ MM/YYYY	14. Omitted	
			15. Omitted	
16	Date of Last FAA Medical Application	_____ or ☐ No Prior Application (If no prior application, STOP. You cannot use BasicMed.) MM/YYYY		
17	Do You Currently Use Any Medication? (Prescription or over-the-counter) If additional space is needed, check this box ☐ and list information on an additional sheet of paper	☐ No ☐ Yes (If yes, list medication(s) and dosage used below.) Medication Name Dosage		
17b.	Do you ever use near vision contact lens(es) while flying	☐ No ☐ Yes Answer "Yes" if you wear a contact in one eye only to correct for near vision or if you have one contact that adjusts for near vision and one in the other eye that adjusts for distant vision.		
18	Medical History: Mark "Yes" if you have or had any of the following conditions at ANY TIME in your life. Explain when it occurred, the severity, how it was treated, and if you are currently taking any medication or having treatment for the condition or have to see a physician for the condition. Discuss any "Yes" responses with the physician doing this exam.			
	Additional comments or explanations (Give details in the space below)			
		No	Yes	
a.	Frequent or severe headaches:	☐	☐	
b.	Dizziness or fainting spell:	☐	☐	
c.	Unconsciousness for any reason:	☐	☐	
d.	Eye or vision trouble (except for glasses):	☐	☐	
e.	Hay fever or allergy:	☐	☐	
f.	Asthma or lung disease:	☐	☐	
g.	Heart or vascular trouble:	☐	☐	
h.	High or low blood pressure:	☐	☐	
i.	Stomach, liver, or intestinal trouble:	☐	☐	
j.	Kidney stone or blood in urine:	☐	☐	
k.	Diabetes:	☐	☐	
l.	Neurological disorders (epilepsy, seizures, stroke, paralysis, etc.):	☐	☐	
		No	Yes	

Comprehensive Medical Examination Checklist

m.	Mental disorders of any sort (depression, anxiety, etc.):			
n.	Substance dependence, failed a drug test ever, or substance abuse or use of illegal substance in the last 2 years:			
o.	Alcohol dependence or abuse:			
p.	Suicide attempt:			
q.	Motion sickness requiring medication:			
r.	Military medical discharge:			
s.	Medical rejection by military service:			
t.	Rejection for life or health insurance:			
u.	Admitted to a hospital:			
x.	Other illness, disability, or surgery:			
v.	History of (1) any conviction(s) involving driving while intoxicated by, while impaired by, or while under the influence of alcohol or a drug; or (2) history of any conviction(s) or administrative action(s) involving an offense(s) which resulted in the denial, suspension, cancellation, or revocation of driving privileges or which resulted in attendance at an educational or a rehabilitation program:			
w.	History of non-traffic conviction(s) (misdemeanors or felonies): (e.g. battery, assault, public intoxication, robbery, etc.)			

19.	Any visits to a health professional within the last 3 years?	Date	Name	Address	Type of Provider	Reason
	☐ No ☐ Yes If "Yes," list the date, name, address, type of provider and why you saw them. If additional space is needed, check this box ☐ and list information on an additional sheet of paper					

Airman's Signature and Declarations

In accordance with section 2307(b)(2)(A) of the FAA Extension, Safety, and Security Act of 2016 (Public Law 114-190), I affirm that:

- ☐ The answers provided by me on this checklist, including my answers regarding my medical history, are true and complete;
- ☐ I understand that I am prohibited under Federal Aviation Administration regulations from acting as pilot in command, or in any other capacity as a required flight crewmember, if I know or have reason to know of any medical deficiency or medically disqualifying condition that would make me unable to operate the aircraft in a safe manner; and
- ☐ I am aware of the regulations pertaining to the prohibition on operations during medical deficiency and I have no medically disqualifying conditions in accordance with applicable law.

Printed Name _____

Airman Signature _____

NOTE: You must provide ALL sections (SECTION 1-3) of this checklist to your state-licensed physician who will perform and complete the comprehensive medical examination as required by Section 2307(a)(7) of FESSA.

BasicMed SECTION 3: Instructions for State-Licensed Physician

Comprehensive Medical Examination Checklist

This checklist is being submitted by an individual seeking to operate certain small aircraft in accordance with 14 CFR 61.113(i). This rule (BasicMed) allows pilots to use this checklist, and other requirements, in lieu of holding a FAA Airman Medical Certificate. The examination checklist may only be completed by a state-licensed physician. Under BasicMed, an individual may only act as pilot in command (PIC) of an aircraft that is authorized to carry not more than 6 occupants, and that has a maximum certificated takeoff weight of not more than 6,000 pounds.

As the examining physician, you are required to:

1. Review all sections of the checklist, particularly SECTION 2 completed by the airman.
2. Conduct a comprehensive medical examination in accordance with the checklist by:
 - a. Examining each item specified;
 - b. Exercising medical discretion, address, as medically appropriate, any medical conditions identified; and
 - c. Exercising medical discretion, determine whether any medical tests are warranted as part of the comprehensive medical examination.
3. Review and discuss all prescription and non-prescription medication(s) the individual reports taking and any potential to interfere with the safe operation of an aircraft or motor vehicle.
4. Complete the Physician's Signature and Declaration.
5. Complete the Physician's Information.

You should consider consulting available aeromedical resources on the flight hazards associated with medical conditions/medications, to include:

- The FAA Guide for Aviation Medical Examiners (AME Guide) at <http://www.faa.gov/go/ameguide>;
- The FAA Pharmaceuticals (Therapeutic Medications) Do Not Issue - Do Not Fly list at <http://www.faa.gov/go/dni>;
- Chapter 8 of the FAA's Aeronautical Information Manual (AIM 8-1-1), which addresses medical facts for pilots and is available at http://www.faa.gov/air_traffic/publications/;
- www.faa.gov/go/basicmed.

Comprehensive Medical Examination Checklist

BASICMED SECTION 3: MEDICAL EXAMINATION

(To be performed by state-licensed physician only)

Physician Use Only		
	Patient/Pilot name: Patient/Pilot Date of Birth:	Examined
1.	Head, face, neck and scalp:	☐
2.	Nose, sinuses, mouth, and throat:	☐
3.	Ears, general: (Internal and external (canals) and eardrums (perforation):	☐
4.	Eyes (general), ophthalmoscopic, pupils, (equality and reaction), and ocular motility (associated parallel movement, nystagmus):	☐
5.	Lungs and chest: (Not including breast examination):	☐
6.	Heart: (precordial activity, rhythm, sounds, and murmurs):	☐
7.	Vascular system: (pulse, amplitude, and character and arms, legs, and others):	☐
8.	Abdomen and viscera: (including hernia):	☐
9.	Anus: (not including digital examination):	☐
10.	Skin:	☐
11.	G-U system: (not including pelvic examination):	☐
12.	Upper and lower extremities: (strength and range of motion):	☐
13.	Spine and other musculoskeletal:	☐
14.	Identifying body marks, scars, and tattoos (size and location):	☐
15.	Lymphatics:	☐
16.	Neurologic: (tendon reflexes, equilibrium, senses, cranial nerves, coordination, etc.):	☐
17.	Psychiatric: (appearance, behavior, mood, communication, and memory):	☐
18.	General systemic:	☐
19.	Hearing:	☐
20.	Vision: (distant, near, and intermediate vision, field of vision, color vision, and ocular alignment):	☐
21.	Blood pressure and pulse:	☐
22.	Anything else the physician, in his or her medical judgment, considers necessary.	☐

Comprehensive Medical Examination Checklist

In accordance with 14 CFR 68.5 and 68.7, the examining physician is instructed to:

- Exercise medical discretion to address, as medically appropriate, any medical conditions identified, and to exercise medical discretion in determining whether any medical tests are warranted as part of the comprehensive medical examination; and
- Discuss all drugs the individual reports taking (prescription and nonprescription) and their potential to interfere with the safe operation of an aircraft or motor vehicle.

Physician's Signature and Declaration

☐ In accordance with section 2307(b)(2)(C)(iv), of the FAA Extension, Safety, and Security Act of 2016 (Public Law 114-190), I certify that I discussed all items on this checklist with the individual during my examination, discussed any medications the individual is taking that could interfere with their ability to safely operate an aircraft or motor vehicle, and performed an examination that included all of the items on this checklist. I certify that I am not aware of any medical condition that, as presently treated, could interfere with the individual's ability to safely operate an aircraft.

Patient/Pilot Name (printed)

Patient/Pilot Date of Birth

Signature of Physician who performed the exam

Physician's Information

1.	Full name of physician who performed the exam: Printed or Stamp	Last :	First:	Middle Initial:
2.	State license number:	State	Medical license number	
3.	Telephone number:			
4.	Street address:	Address: Suite:		
		City: State: Zip Code:		
5.	Date of Examination:	(MM/DD/YYYY)		