BASE OPERATIONAL MEDICINE CLINIC PARAPROFESSIONAL EXAMINATION GUIDE (PEG)

10/29/2020

VERSION HISTORY

The Base Operational Medicine Clinic (BOMC) Paraprofessional Examination Guide shall be re-evaluated at each BOMC version release as required.

Version Number	Implemented By	Revision Date	Description of Change(s)
5	Col Cunningham	7/3/2017	Initial version
5	71 HPW/HPA	6/5/2019	Updates throughout
5	USAFSAM/FEB	6/12/2020	Updates throughout
5	USAFSAM/FEB	8/16/2020	Updates throughout
5	USAFSAM/FEB	8/31/2020	Updates throughout
5	USAFSAM/FEB Legal	10/29/2020	Distribution statement changed from D to A

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INTRODUCTION:

This guide outlines the various paraprofessional exams used during Initial Flying Class physicals, annual DoD PHA's, and Occupational Health Exams to evaluate and determine a patient's qualification. The information in this publication is used to standardize exams and finished products throughout the AFMS. Each exam contains pertinent information, equipment needed, testing procedures, and required documentation to complete each exam. Providers and Technicians must become familiar with the instructions and information provided in this guide.

I. ANTHROPOMETRICS

A. Buttock to Knee Measurement (29 Jun 17)

Buttock to Knee measurement helps ensure that the patient's knees and distal lower extremities will clear the instrument panel during the ejection sequence.

1) Equipment Required

- Flat, hard table or stool (which allows the back of the patient's knees to touch the edge of the table)
- Measuring tape

2) Testing Procedures

The patient will be seated on the table or stool. The hips, knees, and ankles must be flexed at 90 degrees, lower legs dangling free, torso straight, and the head facing directly forward. Measure the distance from the rearmost point on the buttocks to the front of the knee.

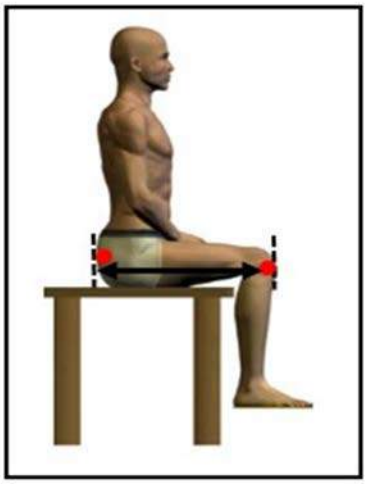

Figure 1. Buttocks to Knee

3) Documentation

- Test results will be measured to the nearest quarter of an inch and recorded in item 73 of the DD Form 2808.

Table 1. CPT Code for Buttock to Knee Measurement

CPT Code for Buttock to Knee Measurement	
Code N/A	Included in physical exam

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B. Functional Reach Measurement (10 May 17)

Functional reach determines the patients' ability to perform all duties required for flight.

1) Equipment Required

- Measuring device (fixed to a wall)

2) Testing Procedures

The functional reach will be measured while the patient is barefoot. Ask the patient to stand with their feet flat on the floor, clench their fist, hold their arm straight overhead, and have the patient stand with their arm raised side to the measuring device. Have the patient take a deep breath in and exhale to ensure an accurate measurement. Measure from the top of the closed fist (highest point on the knuckles of the hand) to the floor. The fixed measuring device method is the most accurate and is therefore the recommended method.

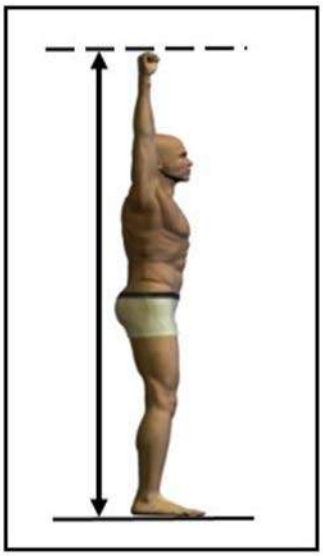

Figure 2. Functional Reach

3) Documentation

Test results will be measured to the nearest quarter of an inch and recorded in item 73 of the DD Form 2808.

NOTE: A waiver should be submitted for individuals that do not meet standards IAW Medical Standards Directory (MSD).

Table 2. CPT Code for Functional Reach

CPT Code for Functional Reach	
Code N/A	Included in physical exam

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C. Sitting Height Measurement (10 May 17)

Sitting Height measurement helps ensure that there is no motion interference while performing duties in the cockpit of an Airframe or during the ejection sequence.

1) Equipment Required

- Flat, hard table or stool (sitting height measuring device can be manufactured locally)
- Measuring device (fixed to a wall or measuring tape)

2) Testing Procedures

The patient will be seated on a table or stool. The hips, knees, and feet must be flexed at 90 degrees, lower legs dangling free, torso straight, and the head facing directly forward. Measure the distance from the top of the head to the surface of the table or stool.

Figure 3. Sitting Height

NOTE: The measurement is from the top of the head not the top of the hair. If the patient's hair is styled in such a way that it interferes with the measurement, instruct the patient to remove buns, braids, clips, etc.

3) Documentation

Test results will be measured to the nearest quarter of an inch and recorded in item 73 of the DD Form 2808.

Table 3. CPT Code for Sitting Height

CPT Code for Sitting Height	
Code N/A	Included in physical exam

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D. Standing Height Measurement (10 May 17)

There are minimum and maximum height requirements. Any measurement outside of the standards may affect other anthropometric standards while performing flying duties.

1) Equipment required

- Measuring device (fixed to a wall)

2) Testing Procedures

Standing height will be accomplished without shoes. Patients are instructed to stand at the position of attention with their back against the measuring device and keep their head facing directly forward. Be careful not to allow slouching (which will lower a standing height) or standing on the toes and stretching (which will raise a standing height). The fixed measuring device method is the most accurate and is therefore the recommended method.

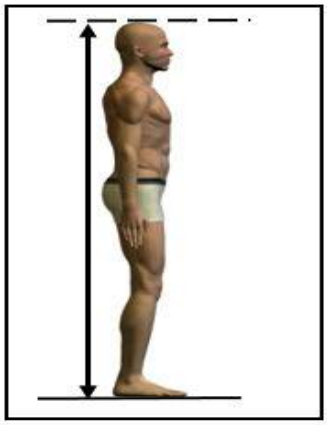

Figure 4. Standing Height

NOTE: The measurement is from the top of the head not the top of the hair. If the patient's hair is styled in such a way that it interferes with the measurement instruct the patient to remove buns, braids, clips, etc.

3) Documentation

Test results will be measured to the nearest quarter of an inch and recorded in item 53 of the DD Form 2808.

NOTE: Patients with a standing height measurement below standards IAW MSD must have a functional reach measurement accomplished.

Table 4. CPT Code for Standing Height

CPT Code for Standing Height	
Code N/A	Included in physical exam

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E. Weight Measurement (11 May 17)

Weight criteria exists for safe-escape standards from ejection seat aircraft. 1)

Equipment required

- Calibrated scale

2) Testing Procedures

The patient's weight will be measured with shoes off. Remove contents from the pockets and any extraneous equipment or outer clothing that would affect the patient's weight. Have the patient stand still while on the scale. Read the measurement directly in front or behind the scale. Reading the scale from either side rather than straight on reduces accuracy (digital scales may be read from the side). There will be no weight deduction for uniforms, PT gear, civilian attire, etc. If weight measurement is within ten pounds of the upper or lower standard, have the patient strip down to their under garments. Refer to MSD to determine weight standards.

Figure 5. Calibrated Scales

3) Documentation

Test results will be measured to the nearest quarter pound and recorded in item 54 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

Table 5. CPT Code for Weight

CPT Code for Weight	
Code N/A	Included in physical exam

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II. CARDIO-PULMONARY EXAMS

A. Electrocardiogram (EKG)

By measuring the various waves, complexes, intervals, and electrical voltage, a trained person can determine the rate, rhythm, and axis (angle) of the heart, along with any evidence of myocardial hypertrophy or infarction. These determinations, along with other cardiovascular examinations (including BP, pulse, and auscultation of the heart), will give an overall picture of the patient's cardiovascular status. The EKG presents an accurate picture of the electrical activity of the heart, not the physical activity; it should not be used as a final determining factor as to the patient's cardiovascular status. Therefore, it should be used as a starting point for further evaluation and testing if any abnormalities are discovered.

1) Equipment required
   - EKG machine
   - Alcohol swabs/wipes
   - Disposable razor blades
   - EKG electrodes (Several types of electrodes are available; consult the operator's manual for your machine or the instruction sheets that come with the electrodes for application procedures)
   - Gown/sheet for patient (if required)

2) Testing Procedures

   Refer to CFETP

3) Documentation

   Test results will be recorded in item 52k of the DD Form 2808 and uploaded in attachments within PEPP.

   For rated personnel, reports and copies of tracings/images of any cardiac study (EKG, Holter monitor, echocardiogram, treadmill, stress myocardial perfusion imaging, CT scan for coronary calcium, etc.) accomplished for any clinical or aeromedical indication MUST be forwarded to the USAF Central ECG Library via PicomGatewayWeb. You may access Picom through the AF portal or logon via https://acspacs.wpafb.af.mil/PicomCloud/

Table 6. CPT Code for Electrocardiogram (EKG)

CPT Code for Electrocardiogram (EKG)	
93000	EKG

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B. Pulmonary Function Test (10 May 17)

The pulmonary function test (PFT) is a non-invasive test that measures how well your lungs work, this includes how well you are able to breathe and how effective your lungs are able to bring oxygen to the rest of the body. PFT's are not routinely accomplished except in support of the Occupational Medicine Program or at a physician's request. When accomplished for any reason, the results will be recorded in the patient's chart.

1) Equipment required

- PFT machine
- Mouthpiece with filter
- Nose piece

NOTE: Ensure that you read your facilities operating manual specific to the apparatus you are using; there are several PFT/Spirometry vendors and machines available.

2) Testing Procedures

Attention to detail is essential for this procedure. Explain the procedure to the patient in simple terms. A statement that patients will be tested on "how hard and how fast they can exhale" may not be physiologically precise, but it may be the only explanation necessary. Ask the patient the following questions:

- "Do you have a history of smoking?" (If so, how many per day and for how long?)
- "When was your last meal?"
- "Have you had a respiratory infection within the last three weeks?"

Ensure at least 1 hour has passed since the patient has either smoked or administered any bronchodilators. PFTs should not be performed within two hours of their last meal.

Testing should be postponed if the patient is acutely ill from any cause or has experienced an upper or lower respiratory tract infection during the previous three weeks.

Have the patient remove restrictive clothing, dentures and stand or sit (as long as the diaphragm is not restricted) in front of the spirometer.

Their chin should be slightly elevated with the neck slightly extended.

Using a nose clip is very important to ensure all air movement is through the mouthpiece only.

Have patient make a nice tight seal around the mouthpiece without their teeth or tongue blocking the hole.

Next, have the patient take the deepest possible breath, seal their mouth firmly around the mouthpiece and quickly blow into the apparatus as hard, fast, and completely as possible.

Ensure the patient maintains a proper seal with the mouthpiece until told to release.

Common errors include failing to maintain an airtight seal around the mouthpiece, puckering the lips (as with a musical instrument), or obstructing the mouthpiece with the tongue. If you believe the patient has not taken a full inspiration before the forced expiration, has not put forth a maximal effort, or has not continued exhaling for at least six (6) seconds (or until an obvious plateau in the volume-time curve has occurred), the test should be repeated.

Attempts interrupted by coughing should be re-accomplished. The variation between the two largest forced vital capacities of three satisfactory tracings should not exceed 10 percent. From the three satisfactory tracings, the forced vital capacity (FVC) and forced expiratory volume in 1 second (FEV1) will be measured. The largest FVC and FEV1 will be used in the analysis, regardless of the curves on which they occur.

Figure 6. Pulmonary Function Equipment (PFE)

3) Documentation

The test results will be printed and scanned into the patient's EHR.

Table 7. CPT Code for Pulmonary Function Test (PFT)

CPT Code for Pulmonary Function Test (PFT)	
94010	Spirometry

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III. SPEECH EXAM

A. Reading Aloud Test (11 May 17)

Reading Aloud Test (RAT) is administered to detect speech abnormalities. The RAT will be administered to all service academy applicants and any other patients whose potential duties require clear enunciation.

1) Equipment required:

The test paragraph;

"You wish to know all about my grandfather. Well, he is nearly 93 years old; he dresses himself in an ancient black frock coat, usually minus several buttons; yet he still thinks as swiftly as ever. A long flowing beard clings to his chin, giving those who observe him a pronounced feeling of the utmost respect. When he speaks, his voice is just a bit cracked and quivers a trifle. Twice each day he plays skillfully and with zest upon our small organ. Except in winter when the ooze of snow or ice is present, he slowly takes a short walk each day. We have often urged him to walk more and smoke less, but he always answers 'Banana Oil!' Grandfather likes to be modern in his language."

2) Testing Procedures

Have the patient face you and read the test paragraph aloud, it must be read loud enough to be heard across the room. If they pause during testing, have them start again from the first word. The patient should not be allowed to pre-read or study the paragraph prior to testing. This test may be re-administered; however, its' effectiveness lessens with every administration.

3) Documentation

Interpreting the test is usually easy since most people do not have speech disorders. If no speech abnormalities are observed, test results will be recorded in item 72a of the DD Form 2808 as SAT (satisfactory).

It becomes difficult to interpret when a patient frequently pauses during testing or repeats words and/or phrases. Obvious speech disorders should be discovered prior to accomplishing this test. The less obvious ones will more than likely show themselves during testing. It is not important that you be able to diagnose speech disorders but you should be able to identify that there is a speech abnormality which may need further evaluation. In this case, test results will be recorded in item 72a of the DD Form 2808 as UNSAT (unsatisfactory) until the patient is cleared by a speech pathologist.

Table 8. CPT Code for Reading Aloud Test (RAT)

CPT Code for Reading Aloud Test (RAT)	
Code N/A	Included in physical exam

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IV. VISUAL EXAMS:

Use of hard, rigid, or gas permeable (hard) contact lenses within four weeks before the examination, or soft contact lenses two weeks before all initial flying examinations is prohibited. If topography is abnormal, repeat exam at three months with no contact lens use during this time as per MSD 27 Feb 2020 Table 1, Note 4. Document on the DD Form 2808 appropriately to ensure this requirement has been met.

Eye exams will be done as best corrected if any vision standards are not met without correction, however for IFC's an uncorrected DVA will also need to be accomplished to establish the patient's PULHES.

A. Amsler Grid

The Amsler Grid is a central field of vision test. It is a subjective monocular grid test designed to evaluate the central visual field 10 degrees from fixation in each eye where sharpest visual acuity occurs. Each eye is tested separately.

1) Equipment Required

- Standard-sized (10cm by 10cm) Amsler Grid card (white lines on black background or black lines on white background)
- Patient's reading glasses (if required)
- Occluder (if available)

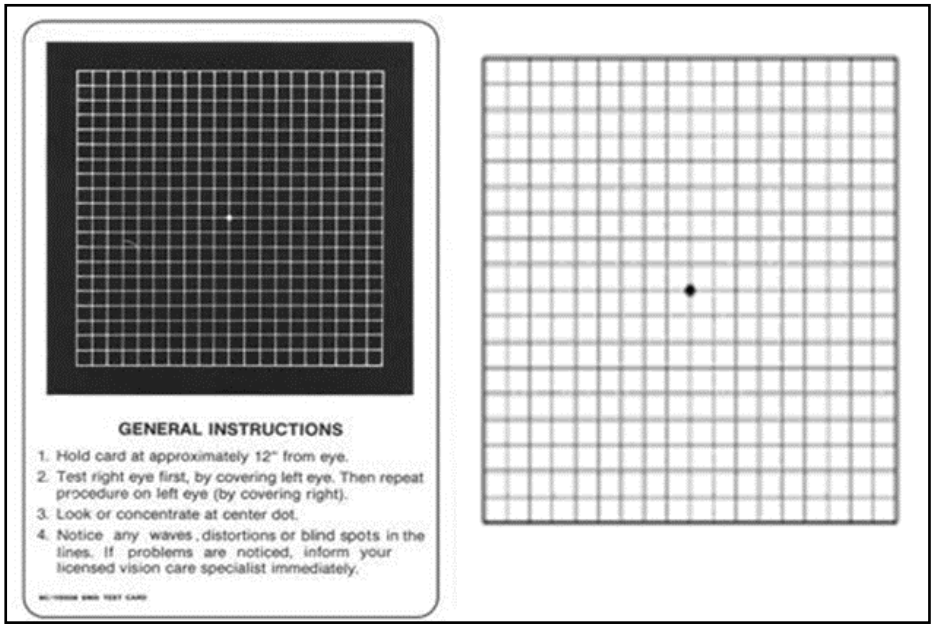

Figure 7. Amsler Grid

2) Testing Procedures

Seat the patient in a room sufficiently lit for reading. If appropriate, they should wear and use their reading lenses. Have the patient hold the Amsler Grid card in their right hand and to cover their left eye with their left palm or the occluder. They should hold the Amsler Grid card 28 - 30 cm (12 inches) from their eye. Ask them to focus on the dot in the center of the grid and to get a visual impression of the surrounding grid lines. They are then asked the questions listed below. The correct (expected) answers are in the brackets next to the questions.

Without moving your eye from the central dot:

- Can you see the central dot? (Yes)
- Can you see the whole grid? (Yes)
- Are all four corners present? (Yes)
- Are all four sides present? (Yes)
- Are all cross-hatched lines present? (Yes)
- Are the vertical and horizontal lines straight and parallel? (Yes)
- Are there any lines that are bent, bowed, or missing? (No)

The left eye is then tested in the same manner, while the right eye is covered.

Abnormalities: If an abnormality is present, the patient may report seeing any of the following:

- Missing lines (scotomas)
- Bent, distorted, non-parallel lines (metamorphopsia)

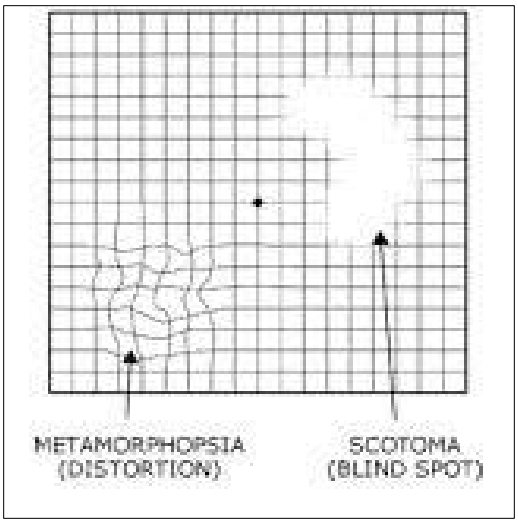

Figure 8. Visual Abnormalities

3) Documentation

If any abnormalities are identified, instruct the patient to draw the abnormalities on an SF 513. This drawing, along with a narrative description of the abnormalities by the examiner, will be given to Optometry for a complete evaluation. The narrative should describe the patients' response to the standard question set. For example: (Pt states the lines in the right lower quadrant are wavy and broken).

Test results will be recorded in item 60 of the DD Form 2808. If more space is needed to document, use item 73 on the DD Form 2808. If normal, record: "Amsler Grid - Normal". If abnormal, record: "Amsler Grid - See attached optometry note".

Table 9. CPT Code for Amsler Grid

CPT Code for Amsler Grid	
Code 99173	Visual Acuity

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B. Cone Contrast Test

The Cone Contrast Test (CCT) is required for all initial flight physicals. CCT is an accurate detection of individuals who have any degree of color deficiency and is the only approved method used in BOMC. The new color vision standard for aircrew is 55 or higher (a score of 35 or higher is passing for MOD). The aircrew standard does not equate to normal color vision but allows for mild color deficient applicants to pass. All other color vision tests will be referred to Optometry.

Please verify that color testing has not already been completed by checking the EHR and PEPP. CCT is done at initial qualification only and is NOT retested for any reason. If the patient has previously taken the CCT, do NOT repeat the test. Contact ACS Ophthalmology with any questions.

Due to the recent changes to AF color vision standards, the Nordstrom Consulting, Inc. (NCI) OcuTest Extended Rabin Cone Contrast Test (RCCT) is the only approved device for initial flying class physical exams. The Konan CCT-HD and the Innova are not approved for initial flying class exam purposes. Any CCT older than three years should be replaced by the NCI CCT.

The NCI CCT Version 14.0M or newer incorporates numerous improvements to the original CCT. It automatically validates scores that are between 30 and 90 by running additional trials. The monitor alignment tube is no longer required due to the use of improved display technology. A game pad controller and a tumbling "C" have replaced the mouse and 10 letter grid for responses. An eye patch is used instead of a handheld occluder.

1) Equipment required

- CCT laptop with pre-installed software and printer
- Monitor Alignment Tube (if using an older CCT)
- Eyepatch (Note that the NCI CCT uses a gamepad controller which requires use of both hands and is not compatible with a hand held occluder).

NOTE: The CCT should be calibrated every 7 days; follow the instructions provided by the manufacturer.

Figure 9. Older CCT Equipment

Figure 10. Current NCI CCT Equipment

2) Testing Procedures

The test should be administered in a dimly lit or dark room with no light falling directly on the screen. Seat the patient 36 inches from the screen with spectacle correction in place (if required to see 20/20 at distance and near). Do not administer the test if the patient is not corrected to 20/20 or best corrected if they do not have 20/20 vision potential. Use the monitor alignment tube to verify that the patients face is parallel to the screen by placing the monitor end of the tube flat on the display and have the patient look into the tube. The patient should be able to see one dot in the tube, if they see two dots, adjust the monitor until they only see one.

If using a newer CCT, without a monitor alignment tube, adjust the monitor to be perpendicular to the patient's line of sight when looking at the center of the screen. Instruct the patient that they are not allowed to move closer to the screen or to move around during testing. If they move during testing, the test is invalid. Exit the test and do not continue without contacting the Optometrist.

Click on the NCI OcuTest Extended icon, select CCT stair, and input patient information, press enter. Allow the patient to practice on the "orientation" screen, while instructing them on how to navigate the test. Tell the patient that the colors get dimmer during the test, and to select the letter that they see on the screen or press the ABXY button on the game pad that corresponds to the direction of the gap in the tumbling "C". Advise the patient that the letter is displayed on the screen for 4 seconds followed by 6 seconds to respond if they haven't already. There is no advantage to responding quickly, however the letter will only be displayed for 4 seconds.

When they are ready for testing to begin, have them cover their left eye with an eye patch (not a hand held occluder) and follow the prompts. Please ensure the eye is fully covered by the patch and the elastic band is properly adjusted. Once the test is started, the administrator must not touch the CCT or click the mouse until the test is complete. The machine will tell them when to switch eyes. After switching the patch, the patient can wait to press "okay" until they are ready to continue the test if they require time for their eye to adjust to the light. The test may have them switch eyes multiple times if it is running additional trials. Do not stop the test or interfere with the test until it is complete (unless stopping the test due to patient movement or failure to follow directions). When the test is complete, print out the results, and upload to EHR.

NOTES:

- If running multiple trials on all colors, the test may take 10-15 minutes! This is necessary to ensure accuracy of the results.
- Ensure that you DO NOT administer any CCT test other than "CCT-Stair". Ensure that you only use the NCI CCT laptop as sent from the company. Brightness and color have been factory set, so do not try to change it in any way.
- Use of tinted or colored spectacle or contact lenses will invalidate the results

of the test. If the patient is wearing glasses, please confirm there is no tint in the lenses by placing the lenses on a white piece of paper and looking for any color in the lenses. Please confirm the patient is not wearing any contact lenses by using a pen light or transilluminator and carefully looking for the edge of the lens around the cornea.

3) Documentation

Test results will be recorded in item 66 of the DD Form 2808 in PEPP. If documenting on a paper DD Form 2808, please document “CCT pass” or “CCT fail” in item 60 and the CCT scores in item 73. If the patient is completing a new initial flight physical and has any prior CCT scores (including failing scores), do not retest the CCT attempting to get passing scores. Copy the prior scores into the current DD Form 2808 in as noted above and add a note in item 73 to document when the testing occurred. If you have any questions, please contact ACS Ophthalmology.

Table 10. CPT Code for Cone Contrast Test (CCT)

CPT Code for Cone Contrast Test (CCT)	
92283	Extended Color Vision Screen (CCT mandated by AFI48-123)

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C. Intraocular Pressure (IOP) or Intraocular Tension (IOT)

Intraocular pressure (IOP) is the fluid pressure inside the eye. Tonometry is the method eye care professionals use to determine IOP. IOP is an important aspect in the evaluation of patients at risk from glaucoma. IOP is done on all individuals who are on flying status.

1) Equipment required:

Non-contact (“air puff”) tonometer

Figure 11. Air Puff Tonometer

2) Testing Procedures

Have the patient sit squarely in front of the instrument, with their chin on the chinrest and their forehead on the forehead rest. Adjust the machine to the patient's height, so that they can see the light in the machine. Adjust the machine body to the eye that is being tested and use the control stick to center the patient's eye to the monitor screen. Once the machine is properly aligned, the machine will deliver the puff of air. Do the same for each eye and annotate the results. There are different machines; ensure that you are operating the one that your facility uses by reading the operator's manual to ensure proper testing procedures.

If any IOP measurement is greater than 21 or if the difference in IOP between the two eyes is 4 or more, refer to optometry for further evaluation.

3) Documentation

Test results will be recorded in item 70 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

Table 11. CPT Code for Intraocular Pressure (IOP)

CPT Code for Intraocular Pressure (IOP)	
Code 99173	Visual Acuity

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D. Optec Vision Tester (OVT)

The OPTEC 2300 Vision Tester (OVT) combines several visual function tests into one piece of equipment. The OPTEC 2300 or its predecessor, the Vision Test Apparatus – Near and Distant (VTA-ND), may be used to complete USAF physical examinations. The DoD approved OPTEC 2300, manufactured by Stereo Optical, Inc., contains test plates specifically designed for military use on which USAF vision standards are based. The test plates provided in both the OPTEC 2300 and VTA-ND are identical. DoD approved test plates are not available in any other Stereo Optical or non-DoD approved instrument. Do not use the OPTEC 5000. It is not an approved device and cannot be used for any aircrew testing.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair

NOTE: Proper maintenance of the OVT is essential to effectively evaluate a patient's vision. If the machine is not clean or in proper operating condition, the patient's results may not reflect their true performance. Preventive maintenance and cleaning instructions can be found in the OVT user's manual.

Figure 12. Optec 2300

2) Testing Procedures

- Position the patient in front of the OVT and adjust the examination table. The patient should face the instrument squarely with forehead pressed against the headrest and should be able to view the entire test plate pattern. Never raise or lower the machine when the patient is in contact with the instrument.
- The desired test number on the OVT dial must align with the distant marker for distant tests or the near marker for near tests.
- Each test of the OVT will be discussed in more detail below.

3) Documentation

See specific test below

E. Test 1 - Distant Binocular Vertical Phoria

Distant Binocular Vertical Phoria is a measurement of the patient's vertical eye alignment (one eye relative to the other). The results indicate which eye aligns higher (hyperphoria), if at all, when both eyes are at rest viewing a distant target. If the results indicate an eye is hyperphoric, by default the opposite eye is relatively lower or hypophoric. This test is not intended to determine which eye is "normal" or diagnose anomalies. This examination will determine which eye is aligned relatively higher than the other, if at all.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair

2) Testing Procedures

The OVT must be configured to illuminate internal lighting for both eyes (binocular). The patient should see a staircase design (numbered along the bottom) with the right eye and a horizontal dotted line with the left eye. To confirm, ask:

- “Do you see a white dotted line?” (Answer should be “Yes”). The line may appear to move up and down.
- “Do you see a set of stair steps with numbers along the bottom edge?” (Answer should be “Yes”)

“Yes” to both questions, proceed with test as directed below.

“No” to either question: Turn off the left eye indicator and ask, "Do you see the stair steps?" Then turn on the left eye indicator and turn off the right eye indicator and ask, "Do you see a white dotted line?" Then turn both light indicators on and ask, "Now do you see both a dotted line and stair steps?"

If patient answers “No” to any of these questions, discontinue test. Patient must be referred to Optometry for further evaluation.

If patient answers “Yes” to all three questions, proceed with test as directed below.

“The line still may be moving a little. But it will seem to align with or will be closer to one of the numbered steps. What is the number of that step?”

Figure 13. Distant Binocular Vertical Phoria Test

3) Documentation

Test results will be recorded in item 64 of the DD Form 2808. For annual PHA’s, test results will be appropriately documented in the patient’s EHR.

The answer should be a number between 1 and 9. All responses to stair steps 1, 2, 8, or 9 will be verified by asking the patient, "Is the dotted line as high as the top (or bottom) of the stair steps?" If the patient reports the dotted line is above step 9 or below step 1 or the test is discontinued due to patient answering “No” to any of the questions record an “X” under both R.H and L.H. Patient must be referred to Optometry for further evaluation.

Test 1	Score	1	2	3	4	5	6	7	8	9
	Prism Diopters	2.0	1.5	1.0	0.5	0	0.5	1.0	1.5	2.0
			Left Hyperphoria				Right Hyperphoria			

Figure 14. Distant Binocular Vertical Phoria Scoring

Compare reported step number with the scoring key (see above) to determine and record the prism diopter equivalent. For example; a response of "7" corresponds with 1.0 prism diopter right hyperphoria; a confirmed response of “1” corresponds with 2.0 prism diopters left hyperphoria. Place the prism diopter value beneath corresponding R.H. (right hyperphoria) or the L.H. (left hyperphoria) and record “0” under the opposite. If the patient answers 5, record “0” under both R.H. and L.H.

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F. Test 2 - Distant Binocular Lateral Phoria

This test is a measurement of the patient’s horizontal eye alignment (one eye relative to the other). The results indicate the patient’s eyes turn inward (esophoria) or outward (exophoria), if at all, when both eyes are at rest viewing a far target. The scoring key is used to convert the patient’s response to a prism diopter value.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair

2) Testing Procedures

The OVT must be configured to illuminate internal lighting for both eyes (binocular). The patient should see an arrow (pointing down) with the right eye and a numbered horizontal dotted line with the left eye. Confirm by asking:

- “Do you see a white dotted line with numbers below it?” (Answer should be “yes”) Not every dot is numbered, however numbering is sequential. The line may appear to move up and down.
- “Do you see an arrow pointing at the dotted line?” (Answer should be “yes”)

“Yes” to both questions, proceed with test as directed below.

“No” to either question: turn off the left eye indicator and ask, "Do you see a row of dots with numbers below it?" Then turn off the right eye indicator and turn on the left eye indicator and ask, "Do you see an arrow pointing down and three white dots below it?" Then turn on both eye indicators and ask, "Now do you see both the dotted line and the arrow?"

If patient answers “No” to any of these questions, discontinue test. The patient must be referred to the Optometry for further evaluation.

If patient answers “Yes” to all three questions, proceed with test as directed below.

“The arrow may appear to move. But it will seem to point to a dot. If it appears to point between two dots, what is the number of the dot closest to the arrow?”

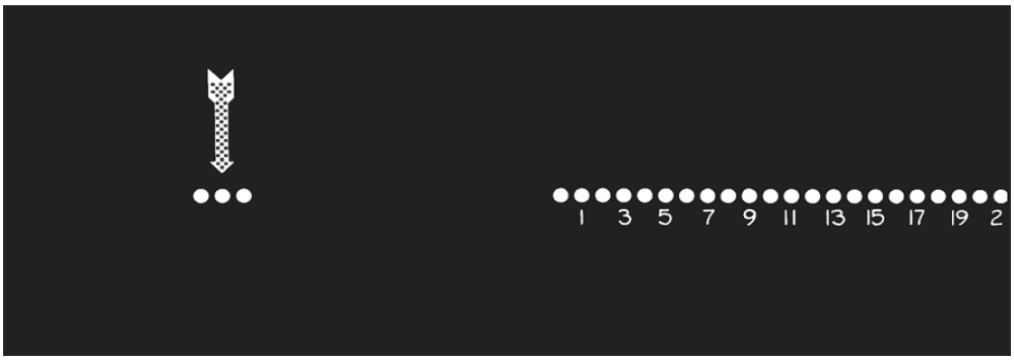

Figure 15. Distant Binocular Lateral Phoria Test

3) Documentation

Test results will be recorded in item 64 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

The answer should be a number from 1 to 21. If the patient reports the arrow lies to the left of 1 or right of 21, or if patient answers "No" to any of the questions record an "X" under both esophoria and exophoria. Patient must be referred to the optometrist for further evaluation.

Test 2	Score Prism Diopters	Score minus 11 Equals Prism Diopters of Exophoria 11 minus Score Equals Prism Diopters of Esophoria

Figure 16. Distant Binocular Lateral Phoria Test Scoring

Compare reported number with the scoring key (see above) to determine and record the prism diopter equivalent. This is done by subtracting 11 from the score if the reported score is greater than 11 (exophoria) or subtracting the score from 11 if the reported score is less than 11 (esophoria). If the reported number is equal to 11 (11-11 = 0), then the prism diopter recorded is "0" (ESO 0, EXO 0). Other examples; a response of "17" corresponds with 6 prism diopters Exophoria (17 – 11 = 6 EXO, recorded as ESO 0, EXO 6); a response of "8" corresponds with 3 prism diopters Esophoria (11 – 8 = 3 ESO, recorded as ESO 3, EXO 0).

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G. Test 3- (and 4, if necessary) - Distant Monocular Visual Acuity

Distant Monocular Visual Acuity simulate a test distance of 20 feet (6 meters). Test 3 is used for testing expected visual acuity of 20/50 or better and test 4 is used for measuring expected visual acuity between 20/70 and 20/400. Each line is used for testing distant visual acuity. Reference the scorecard to determine visual acuity.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair

2) Testing Procedures

Patients on or applying for flying status must correctly read all letters on a given line to be credited with that degree of visual acuity. For example, a patient who is scored as 20/20 visual acuity must have read all 10 letters (10 of 10) on row 9 or 9A of test 3 (no mistakes are allowed). All others must correctly read at least 7 of 10 letters on a given line to be credited with that degree of visual acuity.

The OVT must be configured to illuminate internal lighting for only one eye at a time (monocular). Instruct the patient to place and maintain his/her forehead against the OVT headrest. The patient should see series of letters with the tested eye. If letters are not seen, check the instrument settings above and/or patient's alignment with the OVT.

Give the patient the following direction, "There are 2 groups of 5 letters (10 letters) to the right of a number on this chart. Without squinting, read the letters to the right of the number 5, (the top of the chart)?"

If the patient successfully reads all 10 letters on line 5:

- Instruct the patient: "You will see that the size of the letters become progressively smaller. To the left of the letters is a number (or a number and an "A")."
- Instruct the patient: "Please read the letters in line 9 or 9A without squinting."

If all 10 letters in line 9 or 9A (using test 3) are read correctly, the 20/20 standard is met, however you may continue to the next higher number and have the patient read the letters line by line until it is determined that the patient cannot correctly identify the next smaller line of letters. Encourage the patient to continue until they state they cannot identify any more letters or if they are consistently missing letters on smaller letter rows.

If the patient incorrectly reads the letter, direct the patient to try the other row of the same size letters (9 or 9A). If they complete the row the test is complete.

If the patient incorrectly reads the letter, direct the patient to try one row of larger letters until they can successfully complete that row.

Once a visual acuity is obtained for one eye, follow these same procedures to obtain the visual acuity for the other eye

Compare each response with the score card. Each row of letters is assigned a degree of visual acuity. For example; if the smallest row of letters a patient can correctly identify is line 8, then the visual acuity for that evaluation is 20/25.

3) Documentation

The successfully completed row will be recorded as the patient's visual acuity.

Test results will be recorded in item 61 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

NOTE: If unable to correctly identify 20/400 (test 4 top line), record "20/400+". If it is necessary to determine poor visual acuity more precisely, refer patient to Optometry clinic for evaluation.

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H. Test 5 - Distant Binocular Stereopsis

Distant Binocular Stereopsis is a measurement of the patient's ability to fuse different images and to perceive depth. The results indicate the level to which the patient can use both eyes and neural integration to perceive spatial depth perception. If the patient does not have full simultaneous use of both eyes (amblyopia, trauma, strabismus, etc.) or there is a significant inequality in visual performance of each eye, stereopsis is highly unlikely. If the patient is not seeing 20/20 in each eye, defer stereopsis testing until after Optometry evaluation.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair
- Stereopsis demonstration block

2) Testing Procedures

This test must be performed using best correction. If the patient is required to wear corrective lenses while performing military duties, test and record only corrected results. The OVT must be configured to illuminate internal lighting for both eyes (binocular).

Fusion Test: You must test for fusion each time you use test 5 (or 5A). The test determines whether the patient can combine a visual target presented to the right eye with a slightly different visual target seen by the left eye into a single "fused" image and report the appearance of a single perceived target.

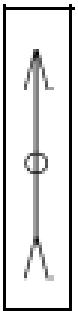

Figure 17. Test 5 Visual Target

If the OVT configuration is correct and the patient is correctly aligned with the instrument, the patient should see an arrow (see image above). Confirm by asking: "Describe (or preferably draw) the object you see in the upper left-hand corner of this test slide."

If the answer is something other than an arrow with a head, a tail, and a circle in the middle of the shaft, confirm setting and patient alignment with the OVT. If patient is still unable to identify the object or reports only part of the target, the patient has failed the fusion test. Stop test 5 (or 5A).

If the answer is correct, then continue to Stereopsis test.

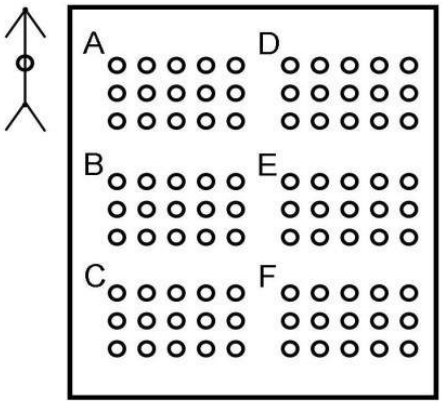

Figure 18. Distant Binocular Stereopsis Test

Stereopsis Test: The "simulated" depth used for this test may be difficult to recognize initially, even for those with normal ability. This test should not be performed quickly. The stereopsis test consists of six groups (see Figure 17) lettered A through F. Each group contains three rows of five circles. Each eye sees separate and almost identical groups laid out in the same pattern. Row for row each eye sees five circles of identical size and equal separation. However, in each of the binocularly viewed rows, one of the five circles is shifted horizontally. That slight displacement gives rise to the perception of depth.

Use the stereopsis demonstration block provided with the OVT to illustrate the expected perception. The expected perception is one of the five circles in each row will appear to be elevated (higher, closer) relative to the other four.
Allow the patient a few seconds to look at the targets in group “A” before starting the test. Virtually all patients with normal stereopsis will observe that the perceived depth is more apparent and easier to identify if allowed brief time to adapt.

Explain the test using similar words to these, "You will see six groups labeled A through F. Each group has three rows of five circles. One circle in each row will appear to be closer to you or slightly elevated. Starting with the top row of circles in Group A, tell me which circle is elevated above or closer to you than the other four circles; the first, second, third, fourth, or fifth numbered with one on the left.”

If the patient cannot perceive elevation of any circles in group A, confirm instrument setting and patient's alignment with the OVT. If still unable to identify any circle elevation, you may tell the patient the correct answers to the three rows of group A and instruct them to look at each row in turn knowing which circles are supposed to appear elevated. If the patient reports ability to recognize the elevation, and thereby the test goal, in at least the top row, proceed to the actual test. The remainder of the testing will be given without any further help or hints. If the patient reports inability to discern the elevated circles in group A, discontinue test.

Direct the patient's attention to group B. Ask the patient to indicate, by row, which of the five circles appears to be elevated in the same manner as those in group A. If any incorrect answer is given in group B, repeat the explanation with group A. If they still cannot correctly identify the correct response for all of group B, discontinue the test.

If correct answers are given in group B, continue testing to group C, group D, group E, and group F. All three responses in each group must be correct before proceeding to the next group. The test is discontinued when the patient gives one incorrect answer in any one group beyond group B.

Although a passing score is group B correct, if the patient is only able to answer group B or group C correctly and not get at least through group D, switch to the other stereopsis slide 5A (or 5) and repeat testing. If the results on both slides are not consistent, please refer the patient to Optometry for evaluation.

If the patient fails the test for fusion, or fails stereopsis on the OVT, the patient will be referred to Optometry for a full evaluation.

3) Documentation

Test results will be recorded in item 67 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

Record "PASSES" with the letter (B, C, D, E, or F) of the last group successfully completed (all three responses correctly identified) in the appropriate (corrected or uncorrected vision) box. For example, if the patient successfully completes (no errors) groups B, C, D, E, and F then the correct entry would be: Passes F. The test is failed if the patient makes a mistake in group B. Record "FAILS B" in the appropriate (corrected or uncorrected vision) box.

A fusion test failure is not recorded on the 2808. Leave item 67 blank until evaluated by optometry. If the patient fails B after optometry evaluation, record "FAILS B" in the appropriate box and optometry will place the additional testing in item 73.

Leave the "UNCORRECTED" box blank and record the results of the test in the "CORRECTED" box when lenses are worn. When performing the test as part of a PHA you will record the results as either Corrected or Uncorrected and the results (the letter of the last box passed). An example of this would be "Corrected Passes F" or "Uncorrected Passes E".

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I. Test 8 (and 9, if necessary) - Near Monocular Visual Acuity

Near Monocular Visual Acuity simulates a test distance of 16 inches (40 centimeters). Test 8 is used for testing expected visual acuity 20/50 or better and test 9 is used for measuring expected visual acuity between 20/70 and 20/400. This test must be performed with examinee wearing their vision correction, if their vision correction is intended or required for near or full-time use. If bifocals are worn, the examinee may not be able to maintain contact with the headrests while completing near tests with glasses. Allow the examinee to adjust their head position to ensure near test plates are viewed through the bifocal lenses. If extreme difficulty is experienced maintaining contact with the headrest because of bifocal lenses, depress and hold the override switch located on the side of the OVT. Each line is used for testing near visual acuity. Reference the scorecard to determine visual acuity.

1) Equipment required

- Optec 2300
- Score Card
- Adjustable table or chair

2) Testing Procedures

Patients on or applying for flying status must correctly read all letters on a given line to be credited with that degree of visual acuity. For example, a patient who is scored as 20/20 visual acuity must have read all 10 letters (10 of 10) on row 9 or 9A of test 8 (no mistakes are allowed). All others must correctly read 7 of 10 letters on a given line to be credited with that degree of visual acuity.

The OVT must be configured to illuminate internal lighting for only one eye at a time (monocular). Instruct the patient to place and maintain his/her forehead against the OVT headrest. The patient should see series of letters with the tested eye. If letters are not seen, check the instrument settings above and/or patient's alignment with the OVT.

Give the patient the following direction, "There are 2 groups of 5 letters (10 letters) to the right of a number on this chart. Without squinting, read the letters to the right of the number 5 (the top of the chart)."

If the patient successfully reads all 10 letters on line 5:

- Instruct the patient: "You will see that the size of the letters become progressively smaller. To the left of the letters is a number (or a number and an "A")."
- Instruct the patient: "Please read the letters in line 9 or 9A without squinting."

If all 10 letters (if using test 8) are read correctly, the 20/20 standard is met, however you may continue to the next higher number and have the patient read the letters line by line until it is determined that the patient cannot correctly identify the next smaller line of letters. Encourage the patient to continue until they state they

cannot identify any more letters or if they are consistently missing letters on smaller letter rows.

If the patient incorrectly reads the letter, direct the patient to try the other row with the same size letters, 9 or 9A. If they successfully complete that row, the visual acuity is 20/20.

If the patient incorrectly reads the letter, direct the patient to try one row of larger letters until they can successfully complete that row.

Once a visual acuity is obtained for one eye, follow these same procedures to obtain the visual acuity for the other eye.

3) Documentation

The successfully completed row will be recorded as the patient's visual acuity. Test results will be recorded in item 63 of the DD Form 2808. For annual PHA's, test results will be appropriately documented in the patient's EHR.

NOTE: if unable to correctly identify 20/400 (test 9 top line), record "20/400+". If it is necessary to determine poor visual acuity more precisely, refer patient to Optometry clinic for evaluation.

Compare each response with the score card. Each row of letters is assigned a degree of visual acuity. For example; if the smallest row of letters a patient can correctly identify is line 8, then the visual acuity for that evaluation is 20/25.

NOTE: the OVT test distance for near is 16 inches which does NOT correspond to actual near working distances in aviation environments. While bifocals may be required to pass OVT near acuity, they may not be required for flying purposes. The Optometrist will determine the need for bifocals for flying purposes after evaluation of the patient. Please contact ACS Ophthalmology if you have any questions.

Table 12. CPT Code for Optic Vision Tester (OVT)

CPT Code for Optic Vision Tester (OVT)	
99173	Visual Acuity

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V. VITAL SIGNS

A. Blood Pressure (11 May 17)

Blood pressure is used to evaluate the pressure within the cardiovascular system.

1) Equipment required
   - Blood Pressure cuff or machine
   - Stethoscope
2) Testing Procedures

   Refer to CFETP
3) Documentation

   Test results will be recorded in item 58 of the DD Form 2808.

Table 13. CPT Code for Blood Pressure

CPT Code for Blood Pressure	
Code N/A	Included in physical exam

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B. Pulse (11 May 17)

The pressure wave initiated by the contracting left ventricle and transmitted through the arteries produces a pulse. The pulse can be felt in arteries located close to the skin surface that can be compressed slightly against a bone.

1) Equipment required
   - Timing device (clock, stop watch, etc.)
   - Pulse Oximeter or vital sign machine
2) Testing Procedures

   Refer to CFETP
3) Documentation

   Test results will be recorded in item 57 of the DD Form 2808.

Table 14. CPT Code for Pulse

CPT Code for Pulse	
Code N/A	Included in physical exam

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ATTACHMENT 1. AMPLIFICATION OF POSITIVE MEDICAL HISTORY ITEMS, DD FORM 2807-1

On the following pages you will find basic recommended instructions and examples to follow when explaining answers to items checked "YES" on DD Form 2807-1. It is more important to ensure the item of medical history is explained clearly rather than explained briefly. The following items are in numerical order, using the wording as it appears on the DD Form 2807-1.
1. Related items only need one entry and should be tied together. Refer to the MSD for further studies that may have to be accomplished because of a specific item of medical history.

10a. Tuberculosis: Dx, dates, Rx, follow-up studies, complications, sequelae.
Example: Pulmonary tuberculosis and minimal therapeutic pneumothorax, 2004, full recovery, no complications, follow-up studies to date have been negative for active disease, NCNS.

10b. Lived with Someone Who Had Tuberculosis: Person lived with, length of time, results of tuberculin testing on examinee.
Example: Mother with tuberculosis, examinee lived with her for 6 months, chest x-ray and IPPD tests were normal/negative on examinee.

10c. Coughed up Blood: Dx, cause, dates, Rx, recovery, recurrence, complications, sequelae.
Example: Coughed up blood, due to acute pneumonia, 2013, hospitalized for 2 weeks, no recurrence, NCNS.

10d. Asthma or any breathing problems related to exercise, weather, pollens, etc.: Dx, dates, Rx, history, recurrence, complications, sequelae.
Example: Asthma in childhood, treated symptomatically with Azmacort, no recurrence after age twelve, NCNS.

10e. Shortness of Breath: Dx, dates, cause, Rx, complications, sequelae.
Example: Shortness of breath, 2000 - 2001, following prolonged exertion during athletic competition, resolved with short rest periods, NCNS.

10f. Bronchitis: Dx, frequency, dates, cause, RX, complications, sequelae.
Example: Bronchitis, one episode in 2004, following URI, treated with amoxicillin, no recurrence, NCNS.

10g. Wheezing or problems with wheezing: Dx, frequency, severity, duration, dates, cause, RX, recurrence, complications, sequelae.
Example: Wheezing in childhood, daily, severe reaction, lasting several hours, due to exposure to pet dander, treated with inhaler (if patient remembers specific inhaler-document), no recurrence after age twelve, NCNS.

10h. Been prescribed or used an inhaler: Dx, dates, cause, RX, recurrence, complications, sequelae.

Example: Prescribed albuterol inhaler during childhood for wheezing secondary to exposure to pet dander, no recurrence of wheezing after age twelve despite subsequent exposures to pet dander, inhaler not used or prescription refilled since childhood, NCNS.

10i. A chronic cough or cough at night: Dx, dates, cause, RX, recovery, recurrence, complications, sequelae.
Example: Chronic cough in childhood, due to diagnosis of asthma, treated symptomatically with Proventil inhaler, no recurrence after age twelve, discontinued use of inhaler, NCNS.

10j. Sinusitis: Dx, frequency, severity, duration, dates, geographical influence, Rx, complications, sequelae.
Example: Acute sinusitis, average of 4 episodes a year, severe reaction, lasted 10 to 14 days each episode, 2000 - 2004, occurred while living in Kansas, no recurrence since leaving Kansas, treated with antibiotics, full recovery, NCNS.

10k. Hay Fever: Dx, frequency, severity, dates, geographical influence, Rx, recovery, recurrence, complications, sequelae.
Example: Allergic rhinitis, seasonal (spring), mild, 2002 to 2005, while living in Montana, treated with antihistamines, no recurrence since leaving Montana, NCNS.

10l. Chronic or Frequent Colds: Dx, frequency, severity, dates, geographical influence, Rx, recovery, recurrence, complications, sequelae.
Example: Frequent colds, 10 times a year, mild to severe, from 2001 to 2004, only while living in Wisconsin, treated symptomatically, full recovery, no recurrence, NCNS.

11a. Severe tooth or gum trouble: Dx, dates, cause, Rx, complications, sequelae.
Example: Tooth trouble, 2003, five teeth extracted, full recovery, NCNS.

11b. Thyroid trouble or goiter: Dx, dates, Rx, recovery, recurrence, complications, sequelae.
Example: Hypothyroidism, 2005, treated with Synthroid, well controlled, no problems noted, NCNS.

11c. Eye disorder or trouble: Dx, dates, Rx, recurrence, recovery, complications, sequelae.
Example: Pterygium, left eye, 2006, surgically corrected, full recovery, no recurrence, NCNS.

11d. Ear, nose, or throat trouble: Dx, dates, causes, Rx, recovery, recurrence, complications, sequelae.
Example: Ear trouble in childhood, due to chronic otitis media, treated with Penicillin and PE tubes, tubes removed in 1998, full recovery, no recurrence, NCNS.

11e. Loss of vision in either eye: Dx, date vision was lost, cause, Rx, complications, sequelae.
Example: Enucleated right eye, 2001, in automobile accident, treated with prosthetic device, NCNS.

11f. Worn contact lenses or glasses: Statement, dates, statement as to adequacy of present prescription.

Example Glasses: Glasses worn since 2000 to correct distant visual acuity, current prescription is adequate.
Contact Lenses: Type, reason worn, date first used, date last worn.
Example Contact Lenses: Colored soft contacts worn for cosmetic purposes since 2001, not worn for 3 months prior to this examination.

11g. A hearing loss or wear a hearing aid: Dx, dates, cause, Rx, results.
Example: Bilateral high frequency hearing loss, first noted 2001, attributed to working on flight line without ear plugs, has worn hearing aid since 2003 with good results.
Example Wear a Hearing Aid: Dx, dates, how long worn, results.
Example: Neurosensory hearing loss, 1999, bilateral, has worn hearing aid since 1999 with good results.

11h. Surgery to correct vision (RK, PRK, LASIK, etc.): Type of surgery, date, reason, complications, results.
Example: Lasik, 2007, excessive refractive error, full recovery, NCNS.

12a. Painful shoulder, elbow or wrist (e.g. pain, dislocation, etc.): Dx, dates, cause, frequency, manifestations, severity, disability, Rx.
Example: Painful left shoulder, 2002, football injury, 2 occasions, manifested by joint swelling, minimal disability, treated with physical therapy, no recurrence, NCNS.

12b. Arthritis, rheumatism, or bursitis: Dx, joint affected, dates, recurrence, cause, manifestations, Rx, complications, sequelae.
Example: Arthritis of both ankles and knees, first occurred 1999, (last symptoms 2000), manifested by joint pain after exercise, relieved by weight reduction, aspirin, and heat, NCNS.

12c. Recurrent Back Pain or any back problem: Dx, dates, cause, Rx, duration, disability, recovery, recurrence, complications, sequelae.
Example: Back pain, 2008, while lifting heavy weights, wore back brace for 2 weeks, minimal disability, full recovery, no recurrence, NCNS.

12d. Numbness or tingling: Dx, dates, cause, Rx, recovery, recurrence, complications, sequelae.
Example: Numbness right foot, 2000, secondary to falling off a ladder, no treatment sought, full recovery, no recurrence, NCNS.

12e. Loss of finger or toe: Dx, dates, cause, Rx, complications, sequelae.
Example: Traumatic amputation of distal phalanx, right 4th finger, 2002, secondary to farming accident, sutured, NCNS.

12f. Foot Trouble (e.g. pain, corns, bunions, etc.): Dx, dates, cause, Rx, complications, sequelae.
Example: Hammer toe, left 2nd toe in childhood, residual of poliomyelitis, surgically corrected in 2003, full recovery, NCNS.

12g. Impaired use of arms, legs, hands, or feet: Dx, dates, cause, Rx, complications, sequelae.

Example: Limited use of right arm, 2003, secondary to dislocation of shoulder, following football injury, treated with closed reduction and sling, does not interfere with activities, runs 3 miles 3 times a week, NCNS.

12h. Swollen or Painful Joints: Dx, dates, cause, recurrence, complications, sequelae.
Example: Swollen right ankle, 2004, caused by softball injury, no treatment, no recurrence, NCNS.

12i. Knee trouble (e.g., locking, giving out, pain or ligament injury, etc.): Dx, dates, cause, frequency, manifestations, severity, Rx.
Example: Anterior cruciate ligament tear left knee, 2004, while playing racquetball, moderate instability, treated with arthroscopy surgery and physical therapy, full recovery, NCNS.

12j. Any knee or foot surgery including arthroscopy or the use of a scope to any bone or joint: Dx, dates, cause, severity, procedure, complications, sequelae.
Example: Anterior cruciate ligament tear left knee, 2004, while playing racquetball, moderate instability, treated with arthroscopy surgery and physical therapy, full recovery, NCNS.

12k. Any need to use corrective devices such as prosthetic devices, knee brace(s), back support(s), lifts or orthotics, etc.: Dx, dates, cause, duration worn, recurrence, complications, sequelae.
Example: Back strain, 2000, while lifting heavy boxes, wore back brace for 6 weeks, no recurrence, NCNS.

12l. Bone, joint, or other deformity: Dx, area affected, dates, cause, Rx, interference with function or circulation, complications, sequelae.
Example: Congenitally deformed left ankle, treated with cast for 6 months and corrected, no current interference with function or circulation, NCNS.

12m. Plate(s), screw(s), rod(s) or pin(s) in any bone: Dx, date, contributing factors, Rx, recovery, physical restrictions, sequelae.
Example: Right fibula plate, 2001, secondary to skiing accident, surgically stabilized, no physical restrictions, NCNS.

12n. Broken bone(s) (cracked or fractured): Dx (to include location), dates, cause, Rx, recovery, complications, sequelae.
Example: Fractured left femur, 2003, due to football injury, treated with cast for 10 weeks, full recovery, NCNS.

13a. Frequent indigestion or heartburn: Dx, dates, cause, Rx, recurrence, complications, sequelae.
Example: Frequent indigestion secondary to hiatal hernia, 2001, treated with Maalox and staying away from spicy foods, no symptoms since 2003, examinee still uses antacids and watches diet, NCNS.

13b. Stomach, liver, intestinal trouble, or ulcer: Dx, dates, Rx, recurrence, complications, sequelae.

Example: Duodenal ulcer, 2003, treated with Mylanta, no recurrence, NCNS.

13c. Gall bladder trouble or gallstones: Dx, dates, Rx, recurrence, complications, sequelae.
Example: Cholelithiasis, 2002, surgically removed, full recovery, no recurrence, NCNS.

13d. Jaundice or hepatitis (liver disease): Dx, dates, cause, Rx, recurrence, complications, sequelae.
Example: Jaundice, 1995, due to infectious hepatitis, treated with antibiotics, full recovery, no recurrence, NCNS.

13e. Rupture/Hernia: Dx, location, dates, Rx, recurrence, complications, sequelae.
Example: Right inguinal hernia, 2001, surgically corrected, no recurrence, NCNS.

13f. Rectal disease, hemorrhoids or blood from the rectum: Dx, location, dates, Rx, recurrence, complications, sequelae.
Example: External hemorrhoids, 2000, treated with sitz baths, no recurrence, NCNS.

13g. Skin diseases (e.g. acne, eczema, psoriasis, etc.): Dx, dates, cause, Rx, recovery, recurrence, complications, sequelae.
Example: Eczema, 2001, due to unknown allergen, cleared spontaneously, no recurrence, NCNS.

13h. Frequent or painful urination: Dx, dates, cause, Rx, recurrence, complications, sequelae.
Example: Painful urination, 2005, secondary to urinary tract infection, treated with sulfa drugs, no recurrence, NCNS.

13i. High or low blood sugar: Dx, dates, cause (precipitating event), RX, recurrence, complications, sequelae.
Example: High blood sugar, 2011, secondary to gestational pregnancy, no treatment, no recurrence, no complications, NCNS.

13j. Kidney stone or blood in urine: Dx, dates, Rx (including diagnostic tests and results), recurrence, complications, sequelae.
Example: Right unilateral renal calculus, 2006, hospitalized 3 days, passed spontaneously, intravenous pyelogram (IVP) normal after passing, no recurrence, NCNS.
Example: Hematuria, 2007, exercise induced, no hospitalization, cystoscopy is normal, cleared spontaneously, no recurrence, NCNS.

13k. Sugar or protein in urine: Dx, dates, cause, Rx, recurrence, complications, sequelae.
Example: Sugar in urine, 2012, diagnosed as Diabetes Mellitus, adult onset, treated with oral medication and diet, controlled well, routine follow-up evaluations have been normal.

13l. Sexually transmitted disease (syphilis, gonorrhea, Chlamydia, genital warts, herpes, hpv etc.): Dx, dates, Rx, recovery, complications, sequelae.
Example: Gonorrhea, 2013, treated with antibiotics, full recovery, NCNS.

14a. Adverse Reaction to Serum, Food, Insect Stings, or Medicine: Diagnosis (Dx), dates, manifestations, treatment (Rx), recurrence, use of agents since, complications, sequelae.
Example: Adverse reaction to penicillin in childhood, manifested by urticaria, no recurrence, none taken since, NCNS.

14b. Recent unexplained gain or loss of weight: Dx, dates, amount of weight lost or gained, cause, Rx.
Example: Lost 30 pounds, January to May 2010, due to dieting, no treatment.

14c. Currently in good health (If no, explain in item 29 on Page 2.)
Example: Examinee feels present health is poor due to heart condition listed in the medical history.

14d. Tumor, growth, cyst, or cancer: Dx, location, dates, Rx, recurrence, complications, sequelae.
Example: Pilonidal cyst, 2008, surgically excised, no recurrence, NCNS.

15a. Dizziness or fainting spells: Dx, dates, body position, symptoms before fainting or dizziness, time of unconscious, post-unconsciousness mental state, contributing factors or associated stresses, Rx.
Example: Syncopal episode, 2005, had symptoms of influenza for 3 days before, unconscious for 2 minutes, well oriented upon gaining consciousness, attributed to viral illness, no treatment.
Example: Dizziness, 2006, standing up quickly from a sitting position, no loss of consciousness, no known contributing factors or associated stresses, no treatment.

15b. Frequent or Severe Headaches: Dx, dates, frequency, cause, disability during attacks, Rx, complications, sequelae.
Example: Severe migraine headaches, 2011 - 2015, weekly occurrence, disabling, relieved with Imitrex, NCNS.

15c. A head injury, memory loss or amnesia: Dx, dates, duration, cause, unconsciousness, Rx, complications, sequelae.
Example: Amnesia, 2009, 2 months duration, psychogenic reaction to physical abuse, no loss of consciousness, entered in mental health support program for 4 months, NCNS.

Head Injury: Dx (indicate whether injury was closed or penetrating), dates, cause, Rx (including diagnostic studies and results), hospitalization, loss of consciousness, recovery, complications, sequelae.
Example: Moderate laceration to left forehead and non-penetrating, non-displaced skull fracture, 2012, due to hitting windshield during automobile accident, laceration closed with sutures, hospitalized for 3 days, CT-Scan revealed epidural hemorrhage, no loss of consciousness, full recovery, NCNS.

15d. Paralysis: Dx, dates, cause, Rx, recovery, complications, sequelae.
Example: Paralytic poliomyelitis, 2005, hospitalized for 6 weeks, has mild residual weakness of muscles of left leg, otherwise NCNS.

15e. Seizures, convulsions, epilepsy or fits: Dx, dates, cause, manifestations, frequency, Rx, complications, sequelae.
Example: Idiopathic epilepsy, 2003, manifested by petit mal seizure, lasted for 5-7 months, treated with Dilantin for 1 year, no recurrence since, NCNS.

15f. Car, train, sea or air sickness: Dx, dates (frequency), environmental or psychological factors, Rx, exposure to cause since.
Example: Air sickness, 2015 to present x4, air sick while on commercial airlines, treated with OTC Dramamine.

15g. Periods of unconsciousness or concussion: Dx, dates, cause, time period, Rx (include hospitalization and results of neurological evaluation), recovery, complications, sequelae.
Example: Unconscious, 2012, after blow to head with lead pipe, unconscious for 20 minutes, post traumatic seizure observed, hospitalized for 3 days, neurological evaluation and CT scan were normal, full recovery, NCNS.

15h. Meningitis, encephalitis, or other neurological problems: Dx, date, cause, manifestations, duration, Rx, sequelae.
Example: Meningitis, in childhood, secondary to bacterial infection, manifested by stiff neck and headache, hospitalized for 10 days, treated with antibiotics, no recurrence, NCNS.

16a. Rheumatic Fever: Dx, dates, manifestations, recurrence, complications, sequelae.
Example: Rheumatic fever, in childhood, manifested by heart murmur, no recurrence, NCNS.

16b. Prolonged bleeding (as after an injury or tooth extraction, etc.): Dx, dates, cause, Rx, recovery, complications, sequelae.
Example: Bled excessively after extraction of two lower molars, 2014, repacked by dentist, full recovery, NCNS.

16c. Pain or pressure in chest: Dx, dates, cause, Rx, recovery, complications, sequelae.
Example: Chest pain, 2010, due to spontaneous pneumothorax, treated with thoracentesis, full recovery, NCNS.

16d. Palpitation, pounding heart or abnormal heartbeat: Dx, dates, cause, Rx, recovery, complications, sequelae.
Example: Palpitations, 2011, following prolonged exertion, subsided after short rest period, follow-up evaluation revealed normal cardiovascular systems, NCNS.

16e. Heart trouble or murmur: Dx, dates, cause, Rx, recovery, recurrence, complications, sequelae.
Example: Systolic ejection murmur, Grade II/IV, since childhood, due to rheumatic fever, no treatment, still present.

16f. High or Low Blood Pressure: Dx, dates, cause, Rx, recurrence, complications, sequelae.
Example: Hypertension, 2015, familial, treated with low salt diet and weight reduction with fair results, started on Hydrochlorothiazide in 2015 with good results, NCNS.

17a. Nervous Trouble of Any Sort (anxiety or panic attacks): Dx, dates, duration, Rx, complications, sequelae.
Example: Nervous trouble, 2014, due to job pressure, lasted for 2 weeks, cleared when quit job, no treatment, no recurrence, NCNS.

17b. Habitual stammering or stuttering: Dx, dates, duration, Rx.
Example: Stuttered in childhood, 2000 - 2003, recurs under stressful situations, treated with speech therapy.

17c. Loss of memory or amnesia, or neurological symptoms: Dx, dates, duration, cause, Rx, complications, sequelae.
Example: Amnesia, 2009, 20-minute duration, secondary to fall, hospitalized for observation, neurological evaluation and CT were normal, NCNS.

17d. Frequent trouble sleeping: Dx, dates, cause, frequency, Rx.
Example: Insomnia, 2013, due to scholastic problems, lasted for 1 week, no recurrence, no treatment.

17e. Received counseling of any type: Dx, dates, cause, manifestations, Rx, recurrence.
Example: Marital counseling, 2015, secondary to relationship problems, manifested by stress, marital counseling for one month, no recurrence.

17f. Depression or excessive worry: Dx, dates, cause, frequency, Rx.
Example: Depression, 2014, due to family problems, lasted 2 weeks, resolved with the resolution of the family problem, no professional treatment, no recurrence.

17g. Been evaluated or treated for a mental condition: Dx, dates, Rx, recovery, recurrence, complications, sequelae.
Example: Chronic anxiety reactions, 2013, hospitalized for 3 months, no maintenance medications, full recovery, no recurrence, NCNS.

17h. Attempted Suicide: Statement, dates, how attempted, reasons, any further attempts, any follow-up Rx.
Example: Attempted suicide once, 2013, drug overdose, due to family and financial problems, no further attempts, seen in mental health 2 months and released.

17i. Used illegal drugs or abused prescription drugs: Dx, dates, Rx, recovery, recurrence, complications, sequelae.
Example: OxyContin abuse, 2012-2014, hospitalized for rehabilitation, full recovery, no use since, NCNS.

18a. Treatment for a gynecological (female) disorder: Dx, dates, Rx, recurrence, complications, sequelae.

Example: Dysmenorrhea, 2015, treated with physical activity, no recurrence, NCNS.

18b. A change of menstrual pattern: Dx, dates, cause, recurrence, complications, sequelae.
Example: Irregular menses, 2011, due to emotional problems, regular cycle since, NCNS.

18c. Any abnormal PAP smears: Dx, dates, cause, RX, recurrence, complications, sequelae.
Example: Abnormal PAP smear, 2014, ASCUS, colposcopy, monitored in dysplasia clinic, no recurrence, NCNS.

19a. Sensitivity to chemicals, dust, sunlight, etc.: Reason, dates, Rx, complications, sequelae.
Example: Was unable to hold a job on a farm because of chemical sensitivity (eczema) 2009, treated with topical ointment, full recovery, no recurrence.

19b. Inability to perform certain motions: Reason, dates, Rx, complications, sequelae.
Example: Unable to hold job as computer operator because of limitation of flexion of fingers (left hand) following injury in 2006, no treatment required.

19c. Inability to stand, sit, kneel, lie down, etc.: Reason, dates, Rx, complications, sequelae.
Example: Unable to work as aircraft mechanic because of limited range of motion right shoulder following injury in 2006, no treatment required,

19d. Other medical reasons (If yes, give reasons): Reason, dates, Rx, complications, sequelae.
Example: Unable to hold job as control tower operator because of duodenal ulcer, 2008, treated with medication, good recovery, no recurrence, NCNS.

20. Have you ever been treated in an emergency room (If yes, for what?): Reason, dates, Rx, complications, sequelae.
Example: Taken to emergency room in 2010, secondary to laceration on forehead after fall, no LOC, sutured, NCNS.

21. Have you ever been a patient in any type of hospital? (If yes, specify when, where, why, and name of doctor and complete address of hospital.)
Example: Admitted to hospital, 2011, Jane Doe Memorial Hospital, appendectomy, Dr. Stewart, Anywhere City, TX, 19922, NCNS.

22. Have you had, or have you been advised to have, any operations? (If yes, describe and give age at which occurred.)
Example: Vasectomy, 2016, 39, hospitalized 3 days for testicular edema, full recovery, NCNS.

23. Have you ever had any illness or injury other than those already noted? (If yes, specify when, where, and give details.)
Example: Pneumonia, 2012, hospitalized for 3 days, Jane Doe Hospital, Anywhere City, TX, 19922, full recovery, no recurrence, NCNS.

24. Have you consulted or been treated by clinics, physicians, healers, or other practitioners

within the past 5 years for other than minor illnesses? (If yes, give complete address of doctor, hospital, clinic, and details.)
Example: Back pain, 2008, while lifting heavy weights, Acupuncture 3 treatments, Acupuncture Clinic, Anywhere City, TX, 19922, full recovery, no recurrence, NCNS.

25. Have you ever been rejected for military service for any reason? (If yes, give date and reason for rejection.)
Example: Rejected for service with the US Navy, 2013, for history of chronic motion (sea) sickness.

26. Have you ever been discharged from military service for any reason? (If yes, give date, reason, and type of discharge; whether honorable, other than honorable, for unfitness or unsuitability.)
Example: Honorably discharged from US Air Force in 2015 following expiration of term of service, no disability received.

27. Have you ever received, is there pending, or have you applied for compensation for any existing disability or injury? (If yes, specify what kind, granted by whom, and what amount, when, why
Example: Receiving disability since 2009, for symptomatic ankylosing spondylitis, 30 percent.
Example: Intends to apply for disability for hearing loss, no action taken to date.
Example: Received 15 percent disability, 2009 to 2012, for duodenal ulcer, disability waivered in 2012 upon return to active duty, has been asymptomatic since 2012, does not intend to reapply.

28. Have you ever been denied life insurance? Statement and reason, dates, subsequent Rx, results.
Example: Denied life insurance because of recent glomerulonephritis, 2013, obtained insurance from the same company in 2014 after follow-up examinations were negative for renal disease or dysfunction.

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ATTACHMENT 2. FLY PHA EXAM REQUIRMENTS MATRIX

Use the link below to access the most current Fly PHA Exam Requirement Matrix.

https://hpws.afrl.af.mil/DHP/HP/AFMHSC/

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ATTACHMENT 3. TECHNICIAN CHECKRIDES

Use the link below and select the appropriate BOMC workflow to access Technician Checkride forms. The table below shows the applicable forms to use during an evaluation for each workflow.

https://hpws.afrl.af.mil/DHP/HP/AFMHSC/

Table 15. Applicable Forms

Workflow	Anthropometrics	Reading Aloud Test	Amsler Grid	CCT (Cone Contrast Test)	IOP (Intraocular Pressure)	OVT (Optec Vision Tester)
PHA	X		X		X	X
Initial Flying Class Physical	X	X	X	X	X	X

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ATTACHMENT 4. PHYSICAL EXAMINATION ACCOMPLISHMENT AND RECORDING SPREADSHEET

Use the link below to access the most current Physical Examination Accomplishment and Recording Spreadsheet.

https://kx.health.mil/kj/kx4/FlightMedicine/Documents/Standards/Physical_Examination_Accomplishment_and_Recording_Spreadsheet_28%20Jul%2016__excel.xlsx

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ATTACHMENT 5. BOMC INITIAL FLYING CLASS TEMPLATES

Use the link below and select the Medical Clearances workflow to access the appropriate IFC template.

https://hpws.afrl.af.mil/DHP/HP/AFMHSC/

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