

## ACCEPTABLE TEST INSTRUMENTS FOR COLOR VISION SCREENING OF ATCS

(FAA EMPLOYEE 2152 SERIES and CONTRACT TOWER ATCSs)

(Updated 01/31/2024)

### COMPUTERIZED COLOR VISION TESTS:

(Added 05/31/2023)

The following are acceptable computerized color vision screening tests for FAA medical clearance purposes.

- Follow the manufacturer’s guidelines to administer.
- Record test name and results in **Item 59**.
- If applicable, upload computer-generated printout into AMCS as: **Eyes-Color Vision Test**.

TEST	MINIMUM NUMBER CORRECT TO PASS
<p><b>City Occupational Colour Assessment &amp; Diagnosis (CAD; AVOT-PRO-US)</b>  <a href="http://colourassessment.co.uk">Colour Assessment &amp; Diagnosis (city-occupational.co.uk)</a></p> <ul style="list-style-type: none"> <li>• Version - Certification: “Environment and Aviation (Commercial).”</li> <li>• If passes FAST version, no further testing is needed for color.</li> <li>• If fails FAST version, the full definitive CAD must be completed.</li> </ul>	<p>Score must be:</p> <p><b>RED GREEN (RG):</b> Less than 12  <b>AND</b>  <b>YELLOW BLUE (YB)</b> - less than 2.4</p> <p><b>NOTE:</b> An RG score of less than 1.7 indicates Normal. Less than 6 indicates Deutan; and less than 12 indicates Protan.</p>
<p><b>Rabin Cone Test (RCCT)</b>  <b>Air Force/Army/Navy/Coast Guard Version</b></p> <ul style="list-style-type: none"> <li>• Test each eye separately.</li> <li>• Staircase version allowed.</li> </ul>	<p>Score must be <b><u>75 or higher</u></b> for <b>EACH</b> color:</p> <p><b>RED</b>  <b>GREEN</b>  <b>BLUE</b></p>
<p><b>Waggoner Computerized Color Vision Test*</b></p> <ul style="list-style-type: none"> <li>• Windows: <a href="#">Waggoner CCVT (WCCVT) – Waggoner Diagnostics</a></li> <li>• iOS: <a href="#">Waggoner CCVT on the App Store (apple.com)</a></li> <li>• Android: <a href="#">Waggoner CCVT</a></li> </ul> <p><b>*What is tested in each section:</b>                      Section 1: General screening for Protan (red) and Deutan (green) deficiency.                      Section 2: Genetic and acquired deficiencies.                      Section 3: Quantifies Protan (red) deficiency.                      Section 4: Quantifies Deutan (green) deficiency.                      Section 5: D-15 N/A for FAA purposes.</p> <p><b>NOTE:</b> If applicant does not pass Section 1, Section 3, and 4 will be automatically given.</p>	<p>Score must be:</p> <p>General - 21 or higher (of 25); <b>AND</b>                      Tritan - 10 or higher (of 12)</p> <p><b>OR</b></p> <p>Protan - 20 or higher (of 32); <b>AND</b>                      Deutan - 20 or higher (of 32); <b>AND</b>                      Tritan - 10 or higher (of 12)</p>

### ADDITIONAL ACCEPTABLE TESTS:

TEST	DOES NOT MEET THE STANDARD (FAILS) IF:	SUPPLIER
Richmond-HRR, 4th edition	Any error on plates 5-10	Richmond Products
All Ishihara test plates approved for airmen:		Ishihara
14-Plate (plates 1-11)	More than 6 errors on plates 1-11	
24-Plate (plates 1-15)	More than 2 errors on plates 1-15	
38-Plate (plates 1-21)	More than 4 errors on plates 1-21	
Keystone View Telebinocular	No errors on the 6 total trials on plates 4 and 5	Keystone View
Titmus testers approved for airmen, Titmus, Titmus II, Titmus 2a/2s (one is manual, one is electronic)	Any errors on any of the 6 plates	Titmus
OPTEC 2000	Any errors on any of the 6 Stereo Optical Co., Inc., plates	Stereo Optical Co., Inc.
AOC-HRR, 2nd, 1-11	Any errors on plates 5-10	Richmond Products
Dvorine 2nd Edition	More than 2 errors on plates 1-15	Richmond Products

SPECIAL INSTRUCTIONS	
Test Administration	The AME must document the color vision test instrument used, version, answer sheet with the actual subject responses and the score. If MedXPress is used the AME should fax or mail the results to the Flight Surgeon or may document the findings in Block 60.
AME Office Inspection	AME office inspections: The inspector must visually inspect the condition of the color vision test instrument, for fading, fingerprints, pen, or pencil smudges; and lights used. Only a Macbeth Easel or a Verilux True Daylight Illuminator (F15T8VLX) are acceptable. Room lights must be off.
False Negatives	Any test device with a restricted test set, like the Titmus testers, generally have a high false alarm test. If a disproportionately high number of subjects are failing, it may be necessary to review the acceptability of that test instrument. Regional Medical Offices are expected to monitor this situation.

**UNACCEPTABLE TEST INSTRUMENTS FOR COLOR VISION SCREENING OF ATCS  
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AOC-PIP	Mast	Stereo-Optic
Bausch & Lomb Vision Tester	OPTEC 900, 2500*, 5000*	Titmus i400*
D-15	Prism	Vision Chart - color letters
FALANT	Richmond-HRR Versions 2 and 3	
H-O Chart	Schilling	

**Except for the computerized tests listed, any computer applications, downloaded, or printed versions of color vision tests are prohibited.**