

1 NVIS/NVG Ground Compatibility Evaluation

1.1 Daylight Readability Ground Evaluation

1.1.1 Objective of Test

The objective of this test is to insure the instruments and/or gauges are readable in various daytime environmental conditions. It is also to verify that colors are conserved following modification.

1.1.2 Test Setup

- 1) Aircraft should be in full sunlight.
 - a) Preferably late afternoon or early morning with the sun low on the horizon
 - b) The aircraft should be rotated such that the sun shines onto the instrument panel at different angles to evaluate effect on readability
 - c) A mirror used to reflect sunlight onto the instrument panel at different angles and elevations has been shown to be effective. Experience using a "sun-gun" or similar sunlight simulator capable of 10,000 cd/m^2 at instrument face has not been shown to be as effective and is not recommended.
- 2) Photographs of the Cockpit during evaluation are recommended

Daylight Readability Ground Evaluation

Evaluator(s): _____	Date: _____
Applicant/STC Holder: _____	Make/Model: _____
Modification/Kit Installer: _____	Serial No.: _____
Operator: _____	Registration No.: _____

1) All filtered displays are readable from the Pilot's position and other front seat position with sunlight shining on the Display

Remarks/ Comments

SAT

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2) MASTER WARNING & WARNING LIGHTS:

A. Filtered Master Warning, Caution, Advisory, Warning System (CAWS) panel warning lights that use NVIS Red are distinguishable as "red" (Not orange/amber) compared to other lights on the instrument panel. (There are no other red lights on the instrument panel that are true red that could lead to confusion.)

Remarks/ Comments

SAT

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B. Lights are bright and distinguishable enough to capture pilot's attention at all external light levels and sun angles.

Remarks/ Comments

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<p>3) MASTER CAUTION & CAUTION LIGHTS:</p> <p style="margin-left: 20px;">A. Filtered Master Caution Panel (CAWS) caution lights that use NVIS Yellow are distinguishable as amber/yellow compared to NVIS Red lamps. Verify that they do not look green, white, or orange.</p>	
Remarks/ Comments	
<input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
<p style="margin-left: 20px;">B. Lights are bright and distinguishable enough to capture pilot's attention at all external light levels and sun angles.</p>	
Remarks/ Comments	
<input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	
<p>4) Gauges and Clocks with filtered material are readable including any colored arcs or markings. The Colors must be distinguishable through the filter material as required by 14 CFR 27/29.1321, 27/29.1381, 27/29.1541(b)(2), and 27/29.1543(b)</p>	
Remarks/ Comments	
<input type="checkbox"/> SAT <input type="checkbox"/> UNSAT	

Night NVG Aided Readability Ground Evaluation

5) Radio, GPS, or other readout displays with filters are readable.

Remarks/ Comments

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6) Confirm that the Colors are Uniform. Verify that there are not different shades of Red, Amber, or Yellow.

(In some cases, mixing NVIS colors with EFIS or filtered colors leads to different shades of colors. For instance, use of NVIS red on CAWS panels with normal red on EFIS or a filtered instrument can lead to NVIS red looking orange or amber compared to red. Same with Yellow, NVIS yellow can appear greenish.)

Remarks/ Comments

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