



U.S. Department
of Transportation
**Federal Aviation
Administration**

**Transport Airplane Directorate
Aircraft Certification Service**

1601 Lind Avenue Southwest
Renton, Washington 98057-3356

MAY - 3 2016

In Reply
Refer To: 130S-16-91

Mr. Dean Wilkinson
Chief Technical Officer
AeroLEDs LLC
8475 West Elisa Street
Boise, ID 83709

Dear Mr. Wilkinson:

Subject: Technical Standard Order (TSO) Authorization Application TSO-C30c and TSO-C96a – Pilatus Modular Trainer Wingtip Light System

This is in reply to your letter dated March 9, 2016, requesting TSO authorization for your Pilatus Modular Trainer Wingtip Light System. The statement of conformance to TSO-C30c and TSO-C96a and the submitted data are accepted. Effective the date of this letter, you are authorized to identify Pilatus Modular Trainer Wingtip Light System with the marking requirements defined in Title 14 Code of Federal Regulations (CFR) section (§) 21.616(d)(e), in TSO-C30c and TSO-C96a.

P/N	Description	TSO
900-01-200-L	NAV/ACS - Class II white anti-collision and Type I Left position	TSO-C96a & TSO-C30c
900-01-200-R	NAV/ACS – Class II white collision and Type II Right position	TSO-C96a & TSO-C30c
900-01-250	PCU - Class II white anti-collision and Type I, Type II, and Type III position	TSO-C96a & TSO-C30c
900-01-300-L	POS - Type III Left position	TSO-C30c
900-01-300-R	POS - Type III Right position	TSO-C30c

Note:

PCU is an acronym for Power Control Unit

NAV/ACS is an acronym for Navigation/Anti-Collision System

POS is an abbreviation of Position

Your letter states the aforementioned part numbers meet the applicable requirements of the aforementioned TSOs, and is in conformance with 14 CFR part 21, subpart O.

The Seattle Manufacturing Inspection District Office (MIDO), ANM-108S, reviewed and approved your revised Quality Manual (QM) Document Number 9000-0000 QMS-00, Revision I, dated February 26, 2016.

Your Quality Control Systems, as defined in your QM, currently on file at the Seattle Manufacturing Inspection District Office, is considered satisfactory for production of this article at: 8475 West Elisa Street, Boise, ID 83709.

The TSO Authorization is based on AeroLEDs’:

1. Statement certifying that the applicant meets the requirements of 14 CFR part 21 subpart O.
2. Statement certifying that the article complies with the TSO in effect on the date of application.
3. Quality System, which complies with the requirements of 14 CFR § 21.607 and has been found satisfactory for production of the article.

The following design data, submitted with your letter, has been added to our TSO file:

Document No.	Description	Rev	Date
3001-0008	HALT/ESS Plan for Pilatus Navigation and Strobe Lights	A	4/1/2016
3001-0009	Parts List For Pilatus Navigation and Strobe Lights	IR	8/11/2015
3001-0010	Installation/Operators Manual	B	3/8/2016
3001-0011	Similarity Report	B	3/30/2016
3001-0012	Pilatus POS Manufacturing & Assembly Process	IR	11/18/2015
3001-0013	Pilatus PCU Manufacturing & Assembly Process	IR	10/8/2015
3001-0020	Product Acceptance Test Procedure	B	3/31/2016
3001-0021	Master Drawing List	A	4/19/2016
3001-0022	Pilatus NAV/ACS Manufacturing & Assembly Process	IR	11/18/2015
3001-0024	Qualification Test Procedure	A	3/16/2016
3001-0025	Qualification Test Report	C	3/17/2016
3001-0026	Equipment Safety Analysis	IR	1/29/2016
3001-0027	Reliability Predictions FMECA	A	2/26/2016
3001-0029	Environmental Qualification Form	IR	2/23/2016
3001-0030	HALT Test Report	IR	4/1/2016
3001-0031	TSO Accomplishment Summary	IR	4/14/2016
900-01-200-L	NAV/ACS Left	IR	8/18/2015
900-01-200-R	NAV/ACS Right	IR	8/18/2015
900-01-201-L	NAV/ACS Housing Left	IR	9/10/2015
900-01-201-R	NAV/ACS Housing Right	IR	9/10/2015

Document No.	Description	Rev	Date
900-01-202-L	NAV/ACS Cover Left	IR	9/10/2015
900-01-202-R	NAV/ACS Cover Right	IR	9/10/2015
900-01-203-L	NAV/ACS Base Left	IR	9/10/2015
900-01-203-R	NAV/ACS Base Right	IR	9/10/2015
900-01-204	NAV/ACS Mount	IR	9/10/2015
900-01-205	NAV/ACS Base PCA	IR	9/10/2015
900-01-206	POS PCA	IR	9/11/2015
900-01-207-L	NAV LEFT PCA	IR	9/11/2015
900-01-207-R	NAV RIGHT PCA	IR	9/11/2015
900-01-208	NAV/ACS Wire Harness	IR	9/10/2015
900-01-209-L	Label, Pilatus NAV/ACS Left	A	2/8/2016
900-01-209-R	Label, Pilatus NAV/ACS Right	A	2/8/2016
900-01-250	PCU ASSEMBLY	IR	8/18/2015
900-01-251	PCU BASE	IR	9/11/2015
900-01-252	PCU COVER	IR	9/11/2015
900-01-253	PCU PCA	IR	9/11/2015
900-01-259	Label, Pilatus PCU	A	4/15/2016
900-01-300-L	POS LEFT	IR	8/18/2015
900-01-300-R	POS RIGHT	IR	8/18/2015
900-01-301-L	POS Housing Left	IR	9/10/2015
900-01-301-R	POS Housing Right	IR	9/10/2015
900-01-302-L	POS Lens Left	IR	9/10/2015
900-01-302-R	POS Lens Right	IR	9/10/2015
900-01-303-L	POS Base Left	IR	9/10/2015
900-01-303-R	POS Base Right	IR	9/10/2015
900-01-304-L	POS Mount Left	IR	9/10/2015
900-01-304-R	POS Mount Right	IR	9/10/2015
900-01-307	POS Wire Harness	IR	9/10/2015
900-01-308	POS Barrel Adapter	IR	9/10/2015
900-01-309-L	Label, Pilatus POS Left	A	2/8/2016
900-01-309-R	Label, Pilatus POS Right	A	2/8/2016
900-01-1065	NAV/ACS LED PCA	IR	9/11/2015
CTC 7826	DO-160G Sec 12.5 Test Report	IR	2/10/2016

Your letter dated March 8, 2016, requesting deviations from the requirements of TSO-C30c, Aircraft Position Lights and TSO-C96a, Anti-collision Light Systems to use a later version of RTCA/DO-160G for the Pilatus Modular Trainer Wingtip Light System was reviewed by the Federal Aviation Administration (FAA) Seattle Aircraft Certification Office (SACO). Approval was granted for the deviations to TSO-C30c and TSO-C96a via SACO Action Stamp Number AS/130S/16/355, dated March 15, 2016.

Your letter dated March 9, 2016, requesting deviations from the requirement of TSO-C30c, Aircraft Position Lights to use a later version of Automotive Engineers (SAE) International's Aerospace Standard (AS) 8037 and TSO-C96a, Anti-collision Light Systems to use a later version of AS8017 for the Pilatus Modular Trainer Wingtip Light System was reviewed by the SACO then forwarded to FAA Headquarters for concurrence via SACO Memorandum 130S-16-69, dated March 24, 2016. Approval was granted for a deviations to TSO-C30c and TSO-C96a via memorandum from Avionics Systems Branch, AIR-130, dated April 5, 2016.

The enclosure to this letter identifies accepted Non-TSO Functions associated with some of these parts.

As required by the TSO, the following data must be furnished with each manufactured article:

“One copy of the data and information specified in paragraph c(1)(i) through (viii) of this TSO, and instructions for periodic maintenance and calibration which are necessary for continued airworthiness must go to each person receiving for use one or more articles manufactured under this TSO.”

This TSO authorization, issued under § 21.611, is effective until surrendered, withdrawn or otherwise terminated under the provisions of § 21.613. With notice, we may withdraw this TSO authorization if articles aren't in compliance with the applicable TSO performance standards per § 21.2.

This authorization pertains only to manufacturing operations at the above address. Without further FAA approval, we don't allow manufacturers to mark articles after they change their company's name, address, or ownership. You must notify the SACO and Seattle MIDO of name, address, or proposed ownership changes.

You must obtain FAA approval prior to making any changes to the location of your manufacturing facilities pursuant to § 21.609(b). This office must be notified at least 30 days in advance of any proposed facility relocation to preclude interruption while awaiting quality control approval of that facility. As required by § 21.616(f), you must also notify the FAA when you no longer manufacture a TSO approved article. Copies of the data must be sent to the FAA when you no longer manufacture a TSO approved article.

Per § 21.614, a holder of a TSOA may not transfer it. If you wish to transfer it, you must request a transfer from the FAA.

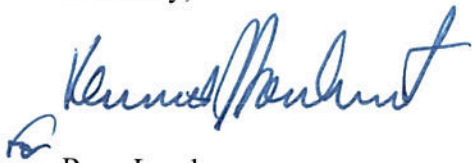
Send to the office below any design change(s) for this TSO article as outlined in § 21.619(a). You must notify us of minor design changes within 180 days. Also, as recipient of this authorization, we require you to report any failure, malfunction, or defect relating to articles produced under this authorization in accordance with the provisions of § 21.3. Notification of changes should be made prior to shipment.

As a recipient of this TSO authorization you are required to report any failure, malfunction, or defect in any product or part manufactured by you or your contracted suppliers, and which you have determined has resulted or could result in any of the occurrences listed in § 21.3(c).

Please note that technical data retained by the FAA may be subject to a Freedom of Information Act request. As such, this office will notify you of all such requests pertaining to your data and afford you the opportunity to defend the release of the data.

If you have any questions, please contact Ms. Thuan T. Nguyen with the Systems and Equipment Branch, at telephone number (425) 917-6458, at facsimile number (425) 917-6590, or by electronic mail at thuan.t.nguyen@faa.gov.

Sincerely,



Ross Landes
Manager, Seattle Aircraft
Certification Office

Enclosure
Accepted Non-TSO functions

Accepted Non-Technical Standard Order (TSO) Functions

We accept, as valid data, the data supporting the non-TSO functions listed below. **This TSO authorization is not an approval for the non-TSO function(s) or for installation.** You must apply for a separate installation approval so we can determine if the data are applicable and sufficient to show compliance to the airworthiness regulations for the product(s) where the article is installed.

Part Number	Non-TSO Function	Description	Performance Standard	Documentation
900-01-250	Synchronization function	Synchronization signal for synchronizing the anti-collision lights between left and right wingtips	SAE AS8017B Sec 3.6.1	3001-0003 3001-0010 3001-0011 3001-0025
900-01-250	Dimming function	Dimming function for military formation flight per Pilatus technical requirements	N/A	3001-0003 3001-0010 3001-0011 3001-0025

We accept the data supporting the non-TSO functions listed in the above table with the following conditions:

1. The non-TSO functions do not interfere with the article's compliance with the TSO-C30c and TSO-C96a.
2. AeroLEDs controls the design and quality of the article, including the validity of the non-TSO function's data listed in the above table.
3. AeroLEDs evaluates design changes in accordance with Title 14 Code of Federal Regulations section 21.619 to ensure the article continues to comply with TSO-C30c and TSO-C96a.
4. AeroLEDs evaluates design changes to confirm the continued validity of the accepted non-TSO function's data. If the design change affects the accepted non-TSO function, you must obtain approval from the Federal Aviation Administration before incorporating the change into your approved design. If the design change does not affect the accepted non-TSO function, you must report it when you report other minor design changes.