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

Office of the Chief Counsel

800 Independence Ave., S.W.
Washington, D.C. 20591

JUN 08 2012

Nathan R. Smith
Business Development Manager
Crane Aerospace & Electronics
16700 13th Ave West
Lynnwood, WA 98046-9727

Re: Use of "SmartStem" Wireless Tire Pressure System to Check Tire Pressure on Part 135 Aircraft as Preflight Task.

Dear Mr. Smith,

This responds to your March 9, 2012 letter asking whether Part 135 operators may allow their pilots to perform tire air pressure checks as a preflight task if they use a Crane AeroSpace & Electronics "***Smart***Stem" wireless tire pressure sensing system. As a basis for your inquiry, you refer to our November 10, 2010 legal interpretation to Bombardier Learjet[1] on a similar issue – the use by pilots of a passive tire pressure monitoring system (hereafter "November 10th interpretation").

In your request, you described our November 10th interpretation as an authorization that allowed pilots of Learjet Model 60 aircraft operated under 14 C.F.R. part 135 to check tire pressures on those aircraft by reading the tire pressure results on a remote display unit. The display unit is part of a passive wireless system that negates the need for a pilot to read the tire pressure using a gauge physically applied to the tire's valve stem.

A previous interpretation[2] had determined that pilots of Learjet Model 60 aircraft operated under part 135 were not authorized to perform manual checks of tire pressure because the task, which requires manipulating a gauge applied to the tire valve stem, is

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[1] November 10, 2010 legal interpretation to Bombardier LearJet from Rebecca B. McPherson, Assistant Chief Counsel, Regulations Division.

[2] December 26, 2009 legal interpretation to Bombardier LearJet from Rebecca B. McPherson, Assistant Chief Counsel, Regulations Division.

considered to be preventive maintenance and not a pre-flight check.[3] The November 10th interpretation, however, addressed a later development – the use of an installed FAA-accepted passive tire pressure monitoring system. With this system, a pilot could read the tire pressure from a remote display unit, rather than from a tire pressure gauge applied to the valve stem of a tire. We concurred with a determination made by the Aircraft Maintenance Division (AFS-300), in the FAA's Office of Flight Standards, that this is a pre-flight task and not preventive maintenance. As such, our November 10th interpretation was not an authorization for pilots to do anything – it merely concluded that because the task of reading tire pressures from remote display units was not preventive maintenance, pilots of those Learjet Model 60 aircraft, when operated under part 135, could perform the task as a pre-flight task.

Your current inquiry seeks to have our November 10th interpretation apply to other aircraft equipped with an FAA-accepted passive tire pressure monitoring system. You state that the ***Smart***Stem wireless tire pressure sensing system (***Smart***Stem) is certified via supplemental type certificate (STC) for use on several other model aircraft. In a follow-up telephone conversation with Viola Pando, an attorney on my staff, you indicated that the ***Smart***Stem is identical to the passive tire pressure monitoring system described in our November 10th interpretation. It is our opinion that pilots conducting part 135 operations may use the ***Smart***Stem to perform daily tire pressure checks as a pre-flight task if the system has been properly installed on the aircraft by means of an STC or other FAA approval.

We trust that the information provided above is responsive to your inquiry. This interpretation was prepared by Viola Pando, an Attorney in the Regulations Division, Office of the Chief Counsel, and coordinated with the Aircraft Maintenance Division (AFS-300) of the Office of Flight Standards. If you have additional questions regarding this matter, please contact us at your convenience at (202) 267-3073.

Sincerely,

Gary A. Mitchell

for Rebecca B. MacPherson
Assistant Chief Counsel for Regulations, AGC-200

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[3] Section 43.3(g) provides that pilots may perform preventive maintenance on an aircraft they own or operate so long as the aircraft is not operated under parts 121, 129, or 135.