

# Helicopter Terrain Awareness Warning System (HTAWS) MANDATE COMPLIANCE GUIDE



Since 2003 there have been on average 12 fatal HEMS accidents per year—or 1 fatal accident every month.<sup>1</sup>

**2003**

AC 27-1B Certification of Normal Category Rotorcraft (Changes 1-3 Incorporated) and AC 29-2C Certification of Transport Category Rotorcraft (Changes 1-3 Incorporated).

**SEPTEMBER 2008**

Before the House Committee of Transportation and Infrastructure, FAA Director of Flight Standards, John Allen, announced that the agency had initiated the formal rulemaking process that would address several key industry best practices—including HTAWS—to raise the bar on helicopter safety.<sup>2</sup>

**APRIL 2009**

FAA requires airframe specific STCs installation for all HTAWS or achievement of an AML STC.

*(Update and details on FAA requirement on reverse side)*

**2013**



International Helicopter Safety Team (IHST) goal to reduce the worldwide helicopter accident rate by 80% by 2016.<sup>4</sup>

**2016**

FAA mandate publication date (estimated).<sup>3</sup>

**JUNE/JULY 2013**

**FEBRUARY 2006**

The NTSB issued Safety Recommendation A-06-15, which asked the FAA to do the following:

- Require [EMS] operators to install [TAWWS] on their aircraft
- In response, the FAA indicated that, before it could require that HEMS be equipped with TAWWS, a technical standard order (TSO) was needed to specify an acceptable TAWWS for helicopters

**DECEMBER 2008**

TSO-C194 HTAWS Published

**APRIL 2012**



FAA released draft guidance outlining the technical requirements for a widely expected mandate that will require the installation of terrain awareness and warning systems (TAWWS) on all helicopter EMS (HEMS) aircraft.

**JUNE/JULY 2016**

3 year compliance period to end (estimated).

1 University of Chicago Aeromedical Network Study, Ira Blumen.

2 HTAWS to be mandated on all EMS helicopters, Stuart Lau. Professional Pilot, June 2012

3 DOT March 2013 Significant Rulemaking Report. Article #5 Air Ambulance & Commercial Helicopter Operations; Safety Initiatives & Miscellaneous Amendments

4 International Helicopter Safety Team (IHST), www.ihst.org

See what's next

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# HTAWS Mandate and Certification Requirement Update

## Airframe STC Installation Requirement

With the recent Rotorcraft Directorate requirement, that all TSO C-194 HTAWS installations have an STC for the airframe they are installed in, it has thrown a huge burden of cost onto installers and their customers. With no Field Approval process possible for HTAWS installations it leaves very few choices.

## AML STC Gap Analysis—What Actions are Being Completed to Solve the Issue

Sandel is taking the lead on behalf of the industry by working tirelessly to achieve an AML STC for the ST3400H HeliTAWs in a wide selection of airframe makes and models. This is a very complex and time consuming process that requires a Gap Analysis be performed for each airframe to document all differences (e.g. installation, certification basis, airframe types, HIRF and FADEC evaluation, Software/CEH evaluation etc.) between the STC's we currently hold in a Part 27 AS350B2 and a Part 29 Bell 412EP and the airframes we want added to an AML STC list.

## Be Proactive—Submit Your Airframe for Priority Analysis

We encourage you to be proactive.

- Bring to our attention any make and model of helicopter you want included in this effort.
- We also encourage you to consider a cooperative effort in the Gap Analysis process if you have a candidate airframe willing to participate. This does not require the airframe be put into the Experimental Category, only that it be available for comparison to previous or similar models already covered by an STC. In many cases this could be as simple as wire routing, antenna location or alternate supporting avionics interfaces you chose.
- A simple License Agreement form signed by your company will allow us to share our current STC document packages, either Part 27 or Part 29, with you for comparison. Contact us at [support@sandel.com](mailto:support@sandel.com) with your request and a license agreement will be sent you your company.

*There is no guarantee that the FAA's latest forecasted date for HTAWS Mandate will arrive as scheduled, but know that Sandel is working very hard for you to make these installations possible.*

## QUESTIONS TO ASK BEFORE INSTALLING HTAWS:

1. Is the HTAWS, TSO C194 compliant?
2. How does the system technically deal with nuisance alerts?
3. Does the system have a wire database (transmission lines and towers)?
4. What is required to install a solution and get it signed off/certified? STC, AML STC, ACO Assisted Field Approval, etc.?
5. What companies/operators have installed the system, and what have the results been?

**For more information please contact us at [info@sandel.com](mailto:info@sandel.com) or 424-23-HTAWS(4-8297)**

*All information subject to change without notice.*

See what's next  
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