



16702  
CG-ENG  
Policy Letter 03-18  
December 21, 2018

- From: B. J. Hawkins  
COMDT (CG-ENG), Acting
- To: Distribution
- Subj: Adoption of RTCM Standard 13200.0 for Electronic Visual Distress Signal Devices (eVDSDs)
- Ref: (a) RTCM Standard 13200.0 for Electronic Visual Distress Signal Devices (eVDSD),  
June 21, 2018  
(b) Research and Development Center Technical Report, Report No. CG-D-06-17  
“Alternatives to Pyrotechnic Distress Signals: Additional Signal Evaluation”,  
June 2017
1. Purpose. This policy letter provides guidance for acceptance of electronic visual distress signal devices (eVDSDs) that are evaluated as meeting the design and performance requirements of reference (a) as equivalent to electric distress lights certified to 46 CFR 161.013.
2. Background.
- a. The USCG has statutory authority under Title 46, U.S. Code, Sections 3306(a) & (b), 4302(a), and 4502(a) & (c)(2)(B) to prescribe regulations for the design, construction, performance, testing, carriage, use, and inspection of lifesaving equipment (including distress signals) on commercial and recreational vessels.
  - b. Regulations for electric distress lights are in 46 CFR 161.013.
  - c. Under 46 CFR 159.005-7(c), the USCG has the authority to approve an item of equipment that does not meet all of the requirements of 46 CFR 161.013 if it has equivalent performance characteristics.

*An item of equipment or material that does not meet all of the requirements of this subchapter for design or performance may be approved by the Commandant if it has equivalent performance characteristics. The item has equivalent performance characteristics if the application and any approval tests prescribed by the Commandant, in place of or in addition to the approval tests required by this subchapter, demonstrate to the satisfaction of the Commandant that the item is at least as effective as one that meets the requirements of this subchapter.*

- d. In 2013, the USCG Research & Development Center (RDC) commenced a multi-year effort that established a light-emitting diode (LED) signal characteristic, supported by reference (b), as a non-pyrotechnic alternative to a handheld, non-SOLAS pyrotechnic maritime distress flare approved in accordance with 46 CFR Subchapter “Q” requirements, and commonly used as nighttime distress alerting devices.
- e. In concert with the USCG RDC effort, the Radio Technical Commission for Maritime Services (RTCM) chartered Special Committee 132 (SC132) in 2013 to create a standard for an eVDSD. The resulting SC132 collaborative standards development effort culminated in publishing RTCM Standard 13200.0 for eVDSDs in June 2018 (ref. (a)).

3. Discussion.

- a. Studies conducted by the USCG R&D Center (see ref. (b)) support the detectability of the two color flash pattern described by reference (a) for a nighttime visual distress signal.
- b. The USCG has determined that eVDSDs that meet the design and performance specifications in reference (a) are acceptable as equivalent to SOS Distress Signals meeting specifications contained in 46 CFR 161.013 as a nighttime distress signal.
- c. Revisions to this policy may occur as a result of technological advances and/or additional studies to support expanded applications for eVDSDs.
- d. Current devices meeting 46 CFR 161.013 are manufacturer certified with an independent laboratory test report submitted to the Coast Guard indicating compliance with the specified minimal performance criteria in the regulations. Due to the technical complexity of the new eVDSD standard (ref. (a)), testing of a candidate device should be conducted by an independent laboratory accepted by the Coast Guard in accordance with 46 CFR 159.010.
- e. Since these devices are not issued a certificate of approval and the specifications are relatively simple as stated in the CFR, there are currently no USCG accepted laboratories listed in CGMIX for testing to performance criteria in 46 CFR 161.013.
- f. Since eVDSD distress signal characteristics are similar to PFD lights, accepted laboratories for PFD lights (approval series 161.012 or 161.112), as listed on our Coast Guard Marine Information Exchange (CGMIX) website currently at: <https://cgmix.uscg.mil/EQlabs/EqLabsSearch.aspx>, should be queried, as they are likely to have the requisite competency to conduct this testing.

4. Action.

- a. Manufacturers of distress signals should consider using reference (a) for future eVDSD evaluations.
- b. Independent laboratories interested in testing eVDSDs should apply for acceptance under approval series 161.013, according to 46 CFR 159.010-3.
- c. Laboratory test reports for candidate devices should be submitted to Commandant (CG-ENG-4), Commercial Regulations and Standards Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division at [TypeApproval@uscg.mil](mailto:TypeApproval@uscg.mil) following the procedure in 46 CFR 161.013-17.

- d. eVDSDs that have previously been tested and accepted by letter from Commandant (CG-ENG-4) may continue to be accepted as meeting regulatory carriage requirements equivalent to electric distress lights that meet 46 CFR 161.013 for nighttime use only. Previous letters of acceptance remain in effect and are not impacted by this policy, provided that the device still complies with 46 CFR 161.013.
  - e. This new distress signal characteristic and the availability of new eVDSDs should be incorporated into training courses for law enforcement, commercial vessel safety, and recreational boaters.
5. Compliance. Effective December 21, 2018, eVDSDs that have been accepted as meeting the referenced RTCM 13200.0 standard may be carried to meet regulatory requirements for nighttime distress signals per 33 CFR 175.130. No signals (including pyrotechnic distress signals) are removed from the currently available options for distress signals as a result of this action.
6. Additional Considerations.
- a. Any single distress signal should be considered only a part of a vessel's complete distress system. Other communications, safety, and distress signal equipment should always be used as personal preparedness for a worse case distress situation.
  - b. While not specifically required for recreational boats, having an EPIRB or 406 MHz PLB, GPS, and VHF-DSC radio can provide a major advantage for alerting response assets in a distress situation, making it easier to be located for rescue in a timely manner.
7. Disclaimer. The guidance in this policy letter is not a substitute for applicable legal requirements and is not a rule. It is not intended to impose legally binding requirements on any party. This guidance represents the USCG's current thinking on this topic and may assist industry, mariners, the public, and the Coast Guard, as well as other Federal and state regulators, in applying statutory and regulatory requirements. An alternative approach for complying with these requirements is acceptable, if that approach satisfies the requirements of the applicable statutes and regulations.
8. Changes. This policy will be revised as necessary. It will be available with any changes on the CG-ENG portal website at <https://cg.portal.uscg.mil/units/cgeng4/SitePages/Home.aspx>  
Questions concerning equipment approval should be directed to Commandant (CG-ENG-4), Commercial Regulations and Standards Directorate, Office of Design and Engineering Standards, Lifesaving and Fire Safety Division at [TypeApproval@uscg.mil](mailto:TypeApproval@uscg.mil).

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USCG Accepted Independent Laboratories (for 161.012 and 161.112)  
Radio Technical Commission for Maritime Services (RTCM) SC132