

Before the  
 Federal Communications Commission  
 Washington, D.C. 20554

In the Matter of	)	
	)	
BREITLING U.S.A., INC.	)	WT Docket No. 14-196
	)	
Request for Waiver to Permit Equipment	)	
Authorization and Use of Wrist-Worn Personal	)	
Locator Beacon	)	

**ORDER**

**Adopted: June 8, 2015**

**Released: June 9, 2015**

By the Deputy Chief, Mobility Division, Wireless Telecommunications Bureau:

1. Breitling U.S.A., Inc. (Breitling), requests a waiver of Section 95.1402 of the Commission's Rules<sup>1</sup> to permit equipment authorization and use of the Breitling Dual Band Emergency Watch (the "Emergency2"), which includes a Personal Locator Beacon (PLB).<sup>2</sup> For the reasons set forth below, we grant the request for waiver to the extent described herein.

2. *Background.* In 2001, Breitling was granted a waiver to permit equipment authorization and use of its Emergency Watch (the "Emergency"),<sup>3</sup> which was a back-up safety device designed to supplement conventional 121.5 MHz Emergency Locator Transmitters (ELTs),<sup>4</sup> which are radiobeacons that are activated manually or automatically to alert search and rescue (SAR) personnel that an aircraft has crashed, and to identify the location of the aircraft and any survivors.<sup>5</sup> A waiver was required because the Emergency did not meet all of the technical requirements for ELTs, including certain transmitter control, battery, and labeling requirements.<sup>6</sup> Breitling states that there have been ten emergency activations of Emergency watches resulting in the rescue of approximately twenty people, with no inadvertent activations or false alarms.<sup>7</sup>

<sup>1</sup> 47 C.F.R. § 95.1402.

<sup>2</sup> Request for Waiver, dated October 2, 2014 (Waiver Request).

<sup>3</sup> While we refer herein to the device for which a waiver was granted in 2001 as the Emergency and the device for which a waiver is now requested as the Emergency2 in order to distinguish them, we note that Breitling refers to both devices as Emergency models.

<sup>4</sup> See Breitling U.S.A., Inc., *Order*, 16 FCC Rcd 18560 (WTB PSPWD 2001) (*Breitling Order*).

<sup>5</sup> Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Third Report and Order*, WT Docket No. 01-289, 25 FCC Rcd 7610, 7620-21 ¶¶ 17-18 (2010). 406 MHz ELTs transmit a digital distress signal on 406.0-406.1 MHz for communication with the COSPAS-SARSAT satellite system and a lower-powered homing signal on frequency 121.5 MHz; 121.5 MHz ELTs transmit an analog signal on frequency 121.5 MHz that is intended both as a distress signal and a homing signal. The Commission has proposed to phase out 121.5 MHz ELTs in light of the fact that COSPAS-SARSAT no longer monitors the frequency. See Review of Part 87 of the Commission's Rules Concerning the Aviation Radio Service, *Third Further Notice of Proposed Rule Making*, WT Docket No. 01-289, 28 FCC Rcd 512 (2013).

<sup>6</sup> See *Breitling Order*, 16 FCC Rcd at 18562 ¶ 8.

<sup>7</sup> See Waiver Request at 2.

3. In 2002, the Commission amended its Part 95 rules to authorize the equipment authorization and use of PLBs, which are emergency beacons intended for use by individuals on land that transmit a distress signal on 406.0-406.1 MHz for communication with the COSPAS-SARSAT satellite system<sup>8</sup> and a lower-powered homing signal on frequency 121.5 MHz.<sup>9</sup> Section 95.1402 requires PLBs to conform to the Radio Technical Commission for Maritime Services (RTCM) standard that contains minimum requirements for PLBs' functional and technical performance.<sup>10</sup>

4. Breitling has now developed the Emergency2, which includes a PLB. Breitling states that incorporation of a PLB into a wristwatch casing as opposed to a conventional handheld device renders certain requirements in the RTCM standard irrelevant or infeasible, but argues that the Emergency2 provides the offsetting advantage that it is always immediately at hand and ready to operate, with no added risk of harmful interference to others.<sup>11</sup> Specifically, Breitling requests a waiver of certain manual control,<sup>12</sup> battery,<sup>13</sup> and labeling<sup>14</sup> requirements in the RTCM standard. It asserts that none of these issues affects reliable PLB operation, and that the Emergency2 fully meets all other elements of the RTCM standard, except for certain provisions applicable to 121.5 MHz transmissions for which a waiver was granted in 2001. COSPAS-SARSAT states in a Letter of Compatibility that the Emergency2 may be used for operation with the COSPAS-SARSAT system.<sup>15</sup>

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<sup>8</sup> COSPAS-SARSAT is an international satellite-based SAR system established by Canada, France, Russia, and the United States. COSPAS is an acronym for a Russian phrase meaning space system for search and distress vessels; SARSAT stands for Search and Rescue Satellite Aided Tracking

<sup>9</sup> See Amendment of Part 95 of the Commission's Rules to Authorize the Use of 406.025 MHz for Personal Locator Beacons (PLB), *Report and Order*, WT Docket No. 99-366, 17 FCC Rcd 19871 (2002).

<sup>10</sup> See 47 C.F.R. § 95.1402. Section 95.1402 requires PLBs to meet the requirements in RTCM Recommended Standards for 406 MHz Satellite Personal Locator Beacons (PLBs), Version 1.1, RTCM Paper 76-2002/SC110-STD, dated June 19, 2002, but RTCM has revised the standard and the Commission has proposed to amend the rule to require PLBs to meet the requirements in RTCM Standard 11010.2 for 406 MHz Satellite Personal Locator Beacons, with Amendment 1 and Amendment 2, dated June 8, 2012 (RTCM 11010.2). See Amendment of the Commission's Rules Regarding Maritime Radio Equipment and Related Matters, *Notice of Proposed Rulemaking*, WT Docket No. 14-36, 29 FCC Rcd 2516, 2521 ¶ 13 (2014). Breitling states that the Emergency2 complies with both versions as to requirements outside the waiver request, and notes that compliance with the 2012 version also meets the 2002 standard. See Waiver Request at 3 n.6.

<sup>11</sup> See Waiver Request at 4.

<sup>12</sup> Breitling seeks waiver of RTCM 11010.2 sections 4.4.1 (integral manual controls) and 4.4.2 (separate test switch).

<sup>13</sup> Breitling seeks waiver of RTCM 11010.2 sections 4.4.3 (primary, integral, non-rechargeable battery and useful life of battery), A.13.1 (battery requirement to assure PLB will function for a minimum of 24 hours), A.16 (minimum and maximum operating temperatures for auxiliary 121.5 MHz homer), and A.16.2 (transmitter Duty Cycle).

<sup>14</sup> Breitling seeks waiver of RTCM 11010.2 sections 4.5.1 (case highly-visible yellow/orange color), 4.5.2.2 (requirements for displaying various labels), 4.5.2.2.1 (prescribed warnings, instructions, and provide space for required registration sticker), and 4.5.2.2.2 (attached labeling either on outside of PLB or permanently attached to PLB regarding special operating instructions, identification of the manufacturer, PLB type number or model identification, temperature operating range, appropriate Dangerous Goods transportation statement and phone number to report false activations).

<sup>15</sup> See Letter from Steven W. Lett, Head, COSPAS-SARSAT Secretariat to Mr. Jean-Paul Girardin, Vice President, Breitling SA (dated Aug. 18, 2014) (Letter of Compatibility) (attached to Waiver Request).

5. On December 4, 2014, we sought comment on Breitling's waiver request.<sup>16</sup> Almost every commenter supports the waiver request unreservedly, while the United States SARSAT Program (SARSAT)<sup>17</sup> conditions its support on Breitling addressing certain concerns. No commenter opposes the waiver request, and no other commenter expresses any reservations.

6. *Discussion.* Section 1.925(b)(3) of the Commission's Rules provides that we may grant a waiver if it is shown that (a) the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and grant of the requested waiver would be in the public interest; or (b) in light of unique or unusual circumstances, application of the rule(s) would be inequitable, unduly burdensome, or contrary to the public interest, or the applicant has no reasonable alternative.<sup>18</sup> We find that grant of the waiver requested by Breitling is warranted. We conclude that the underlying purpose of Section 95.1402 – to allow PLBs to be used to alert others of a distress situation and assist SAR personnel in locating those in distress – would be served by grant of a waiver, and that grant of the waiver request to permit equipment authorization for the Breitling's Emergency2 is in the public interest.

7. There appears to be no dispute that most of the requirements in the RTCM standard from which Breitling requests a waiver are irrelevant or infeasible for a PLB incorporated into a wristwatch casing. For example, the requirements for integral manual on/off controls, a separate test switch, a highly visible orange or yellow case, and certain labels contemplate a handheld, box-shaped device. Because the Emergency2 is a one-time use device that is activated by extending its antenna and turned off by cutting or wrapping the antenna around the watch body, we conclude that it is not necessary for the Emergency2 to satisfy these manual control requirements. Similarly, a separate test switch is not necessary because a self-test is performed on the completion of every battery charge. Further, because the Emergency2 is a small device worn on the wrist, it is not necessary for the case to be a highly visible orange or yellow. Finally, because of the small size and limited space for labeling, we agree with Breitling that it is sufficient to engrave the operating instructions on the watch, and provide the other required information to users via verbal, written and video presentations at the time of purchase.<sup>19</sup>

8. SARSAT expresses concerns about certain other requirements in the RTCM standard. First, it questions whether the Emergency2's antenna configuration and different deployment orientations will provide an adequate signal for detection by COSPAS-SARSAT satellites, and it asks that Breitling provide analysis and test results to demonstrate that the Emergency2's signal is received and processed by the COSPAS-SARSAT system.<sup>20</sup> As Breitling points out,<sup>21</sup> the COSPAS-SARSAT Letter of Compatibility was based on testing that confirmed the Emergency2 can be used for operation with the COSPAS-SARSAT

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<sup>16</sup> Wireless Telecommunications Bureau Seeks Comment on Request for Waiver by Breitling USA, Inc. to Permit Certification and Use of a Wrist-Worn Personal Locator Beacon, *Public Notice*, 29 FCC Rcd 13590 (WTB MD 2014). Comments were received from Gene Wayan Adgate, Aircraft Owners & Pilots Association, Angel Flight, Amanda Marie Buchheit, Gerald Alan Buchheit Jr., James F. Cear, John P. Currier, James Paul DiMatteo, Equipped to Survive Foundation, Boomer Esiason, Tilman J. Fertitta, Steven B. Goldfarb, Scott Ayers Kartvedt, Mark Kelley, David Martin, Matthew Miller, Brian Nisula, Craig Olson, RTCM, Tailhook Association, United States SARSAT Program, and Kim Woody. Breitling filed reply comments.

<sup>17</sup> The United States SARSAT Program is comprised of the Department of Commerce's National Oceanic and Atmospheric Administration, the Department of Defense's United States Air Force, the Department of Homeland Security's United States Coast Guard, and the National Aeronautics and Space Administration. SARSAT represents the United States Government as a Party within the International COSPAS-SARSAT Program.

<sup>18</sup> 47 C.F.R. § 1.925(b)(3); *see also* *WAIT Radio v FCC*, 418 F. 2d 1153, 1159 (D.C. Cir. 1969).

<sup>19</sup> *See* Waiver Request at 4.

<sup>20</sup> *See* SARSAT Comments at 1.

<sup>21</sup> *See* Breitling Comments at 4; *see also* Equipped to Survive Foundation Comments at 2.

system.<sup>22</sup> Additionally, Breitling provides a testing report demonstrating that all test-coded signals were properly received and processed.<sup>23</sup>

9. The RTCM PLB standard requires a non-rechargeable battery with sufficient charge for the PLB to function for a minimum of twenty-four hours, but the Emergency2 uses a rechargeable battery sufficient to provide eighteen hours of continuous operation. SARSAT is concerned that any further reduction in operating time below eighteen hours “may significantly decrease the likelihood of a successful rescue of the user,” and notes that the capacity of rechargeable batteries tends to diminish over time.<sup>24</sup> It asks that Breitling provide analysis and test results demonstrating that the expected eighteen hours of continuous operation is available over the battery’s service lifetime.<sup>25</sup> Breitling notes that the Emergency2 was successfully tested and complies with COSPAS-SARSAT’s requirements for the use of rechargeable batteries and that the testing addressed the issue of reduction in rechargeable battery capacity as the result of aging, temperature and recharge intervals.<sup>26</sup> RTCM explains that it generally does not support the use of rechargeable batteries in PLBs because conventional PLBs may be stored for long periods without attention as the batteries lose their charge, but the Emergency2 is worn on the wrist and the batteries must be charged for it to be useful as a watch, thus minimizing the chances that the device will be used with discharged batteries.<sup>27</sup>

10. Finally, SARSAT requests that the information provided to Emergency2 purchasers clearly explain how the Emergency2 differs from fully-compliant PLBs regarding these (and other) specifications, and the difference between the Letter of Compatibility and a COSPAS-SARSAT Type Approval.<sup>28</sup> Breitling agrees to use SARSAT’s requested language in the document to be signed before purchase by U.S. consumers.<sup>29</sup> In addition, Breitling states that use of the Emergency2 will be limited to qualified and properly trained customers because it will be sold only by specially trained and certified sales associates.<sup>30</sup>

11. *Conclusion.* For the reasons stated above, we conclude that the underlying purpose of Sections 95.1402 would not be served or would be frustrated by application to instant case, and that grant of the waiver request to permit equipment authorization for the Breitling’s Emergency2 is in the public interest. The Emergency2 is similar to a conventional PLB, but the benefit of being a wristwatch likely to be worn at all times increases the probability of it being available to an individual during an emergency situation. This ready accessibility offsets the operational differences between the Emergency2 and a conventional PLB. Breitling’s representations on the record address the concerns raised by SARSAT. Grant of this waiver request will further the Commission’s goal of promoting safety of life and property without causing harmful inference to other spectrum users.

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<sup>22</sup> See Letter of Compatibility at 1.

<sup>23</sup> Breitling Reply Comments at Attachment.

<sup>24</sup> SARSAT Comments at 1.

<sup>25</sup> *Id.* at 2.

<sup>26</sup> Breitling Reply Comments at 5; *see also* Equipped to Survive Foundation Comments at 2. The tests were conducted in accordance with the COSPAS-SARSAT “Interim Procedure for Type Approval of 406 MHz Beacons Equipped with Li-Ion Rechargeable Batteries, Revision 3, October 2013.” See Letter of Compatibility at 2.

<sup>27</sup> See RTCM Comments at 2.

<sup>28</sup> See SARSAT Comments at 2-3.

<sup>29</sup> See Breitling Reply Comments at 7.

<sup>30</sup> See *id.* Breitling notes that these procedures are in place in the countries where the Emergency2 already is authorized for sale, and are similar to the procedures put in place for the Emergency, and that it is aware of no misuse of either device.

12. Accordingly, IT IS ORDERED, pursuant to Sections 4(i) and 303(i) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(i), and Section 1.925 of the Commission's Rules, 47 C.F.R. § 1.925, that the Request for Waiver filed by Breitling U.S.A., Inc. on October 2, 2014, IS GRANTED ON THE CONDITION that Breitling include in the Conditions of Use to be signed by consumers before purchase the warning language set forth on page 7 of its reply comments.

13. This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's Rules, 47 C.F.R. §§ 0.131, 0.331.

FEDERAL COMMUNICATIONS COMMISSION

Scot Stone  
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