BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

REQUEST FOR WAIVER TO PERMIT EQUIPMENT AUTHORIZATION FOR THE BREITLING EMERGENCY

Breitling U.S.A., Inc., through its attorneys, hereby requests that the Commission grant a waiver of certain provisions of its rules governing equipment authorization for 121.5 MHz Emergency Locator Transmitters ("ELTs") to permit certification of the Breitling Emergency watch (the "Emergency"). The Emergency is a back-up survival instrument intended for use in the event of an aviation accident. A miniature radio transmitter built into the Emergency's case, when manually activated by a pilot in distress or another victim of an aviation accident, broadcasts a signal on the international aviation distress frequency of 121.5 MHz. The Emergency is designed to save lives; it depends on existing search and rescue infrastructure but will place no undue burden upon that infrastructure. For this reason, the Emergency has already been approved for sale by civil aviation and telecommunications agencies in Switzerland, Austria, Germany, and the United Kingdom. The FCC should follow suit.

BACKGROUND

Emergency Locator Transmitters: The Emergency is designed to address a significant aviation safety issue: the inefficiency of conventional 121.5 MHz ELTs. In 1971, in response to a congressional mandate, the Federal Aviation Administration ("FAA") adopted regulations requiring general aviation aircraft to install automatic ELTs.[1] An automatic ELT is a transmitter

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[1]The rule does not apply to scheduled air carriers and turbojet-powered aircraft because they are more readily located in the event of an accident. The ELT requirement thus applies to

that is designed to be activated in the event of a crash; the signal broadcast by the ELT can facilitate search and rescue operations. In addition, certain aircraft, including aircraft that operate over water for extended periods, must carry additional "survival type" ELTs in conjunction with survival craft such as life rafts. Such survival-type ELTs are manually activated or activate automatically upon contact with water.

Following the adoption of the ELT requirement, conventional automatic ELTs proved to be extremely unreliable. In the first place, ELTs frequently failed to activate in the event of a crash. According to the Aircraft Owners and Pilots Association, older-model ELTs have only a 12 percent actual crash activation rate.[2] The FAA has identified several causes of such failures, including insufficient impact to activate the crash sensor, improper installation, battery problems, fire or impact damage, and damage to the antenna.[3]

Just as serious, conventional ELTs have an abysmal false-alarm rate: fully 97 percent of the distress signals broadcast by older-model ELTs are false alarms.[4] The FAA found that many of these failures were due to faulty crash sensors — a hard landing may set off an automatic ELT — corrosion, improper installation, and human failures or mishandling.[5]

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those aircraft that are most difficult to locate in the event of an accident. See generally FAA, Emergency Locator Transmitters, 59 Fed. Reg. 32,050 (1994).

[2]Alton K. Marsh, ELT, Phone Home, AOPA Pilot, Nov. 1997, at 78.

[3]See 59 Fed. Reg. at 32,051.

[4]Marsh, supra note 2.

[5]59 Fed. Reg. at 32,051.

To address these failings, the FAA has adopted new technical standards governing ELTs that are intended to reduce both failures and false alarms.[6] Because these regulations apply only to newly installed ELTs, however, many of the older-model ELTs remain in use; in addition, it is to be expected that even the new ELTs will experience a significant level of crash failure and false alarms.[7]

The Breitling Emergency: Breitling has a long history of cooperation and collaboration with the civil and military aviation communities. More than a decade ago, Breitling set out to design a supplemental personal safety device that would help to address the deficiencies of conventional ELTs. The goals of the design were two-fold. First, the device had to be available and operational even in those cases where a conventional ELT might fail to operate. Just as important, the device had to avoid the accidental false alarms that plagued conventional ELTs, and it had to incorporate design features that would discourage deliberate abuse.

The Emergency is the fruit of that design process. A marvel of miniaturization, the Emergency appears at first glance to be an ordinary watch. The titanium case of this multifunction electronic chronograph, however, contains a remarkably powerful and durable 121.5 MHz microtransmitter. A picture of the Emergency is reproduced below.

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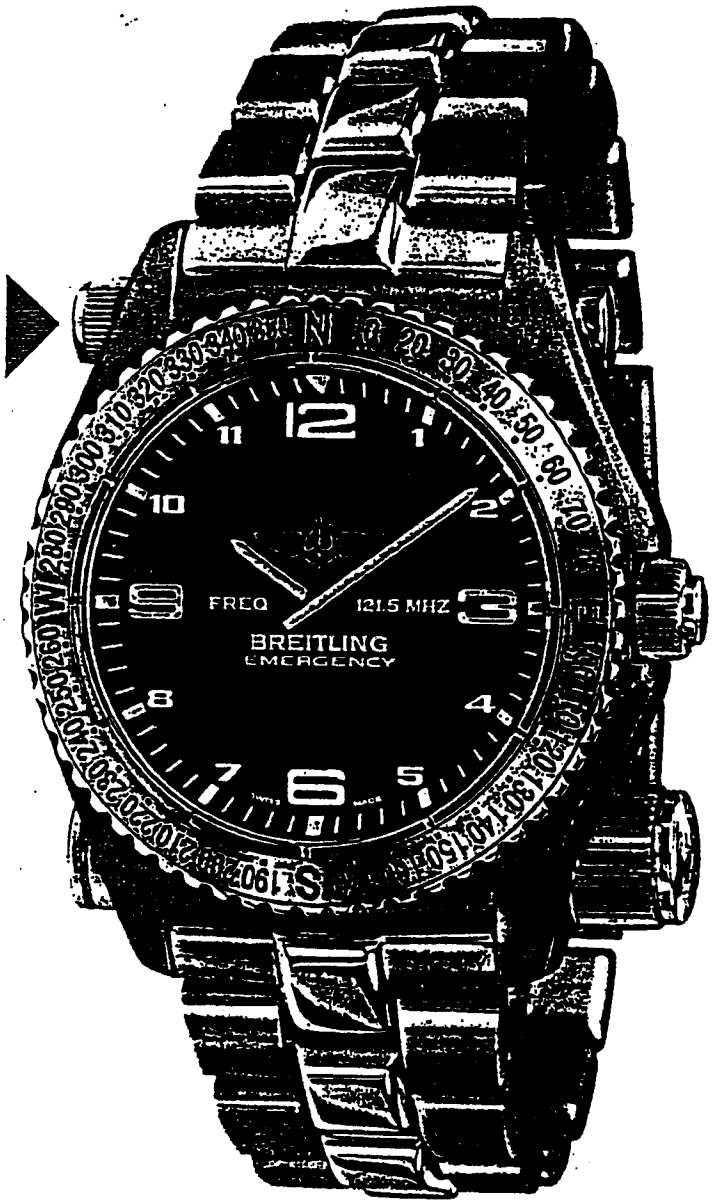
[6]See FAA, TSO-C91a (Apr. 29, 1985).

[7]See 59 Fed. Reg. at 32,050-51.

EMERGENCY

Cap B / *bouchon B* / Verschlusskappe B
complementary antenna / *antenne complémentaire* / Zusatzantenne



Cap A / *bouchon A* / Verschlusskappe A
antenna / *antenne* / Antenne

perspective / *perspective* / Perspektive
(CHR mode / *mode CHR* / Funktion CHR)
scale / *échelle* / Massstab 2:1

In the case of a genuine emergency — and only in such an event — the Emergency is activated by unscrewing the main antenna cap (labeled Cap A in the illustration above) counter-clockwise until the security ring breaks to release the cap. Once the cap is released, the cap is withdrawn to uncoil a tightly wound nickel antenna. When the antenna is fully extended to its length of 43 centimeters (about 17 inches), the cap is designed to break away from the antenna.

Once the primary antenna is deployed, a supplementary antenna may be deployed to increase the transmitter's range without drawing any additional power from the battery. The supplementary antenna cap (labeled Cap B in the illustration above) is turned to release the antenna; the supplementary antenna extends to 60 cm (about 24 inches).

When activated, the Emergency broadcasts an amplitude-modulated signal on 121.5 MHz for 0.75 seconds every 2.25 seconds. In addition, the Emergency identifies its signal by transmitting a Morse code letter "B" every 60 seconds. At 20 degrees Celsius, the Emergency transmits for 48 hours with a peak power rated at 30 mW. Once the Emergency is activated it cannot be turned off, but the signal can be effectively stopped by cutting the antenna or by wrapping the antenna around the watch.

The Emergency is worn on the wrist, so it is always available to a survivor of an air accident. The titanium case is extremely durable, and the function of the transmitter is entirely independent from the chronograph — even if the watch face is smashed and the chronograph is damaged, the Emergency continues to function. Moreover, the antennas are stored inside the case until the transmitter is deployed, so there is no risk that the antennas will be broken off or otherwise damaged in the event of a crash.

The Emergency also contains several features designed to minimize the risk of false alarms. The possibility of accidental false alarms is negligible. The antenna cap can be released only with a deliberate twist — a mere bump would not suffice. Moreover, even after the cap is released, the transmitter is activated only once the antenna is withdrawn a certain distance; and the power of the transmitter is minimal until the antenna is extended to its full length. In short, it is virtually impossible to activate the Emergency by accident.

Moreover, the Emergency is designed and marketed to prevent deliberate misuse of the transmitter. The Emergency has been designed for a single use. Once the transmitter has been activated by extending the antenna, the watch must be returned to a Breitling service center for reconditioning. The service is free if the activation of the transmitter was justified; but if the activation was improper, the cost of reconditioning is high — about half the cost of the instrument itself. In addition, the Emergency is sold only through authorized Breitling dealers who have been specially trained. All purchasers are informed of the restrictions on the use of the Emergency: that it is to be activated only in connection with a genuine aviation emergency. Purchasers are required to register with Breitling and to sign a statement acknowledging the restrictions on the use of the device; they are warned that abuse may entail substantial financial penalties, including the costs of any rescue operation that is undertaken as a result of such abuse.[8]

Experience proves that these measures are effective. Breitling has sold thousands of Emergency watches throughout the world since the device was first approved for sale in Switzerland in 1996. There has been no reported case of accidental or deliberate false alarm.

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[8]A copy of the "Conditions of Sales" is attached hereto as Exhibit A.

Overseas Approval: The Emergency has been approved for sale by civil aviation and telecommunications agencies in Switzerland, Austria, Germany, and the United Kingdom. The Swiss Bundesamt für Kommunikation (Communication Ministry) approved the Emergency in early 1996.[9] The Swiss Federal Office of Civil Aviation has noted that the Emergency "has been designed to save li[v]es and to support search and rescue operations," and that "the potential for improper use can be considered minimal." It therefore agreed not to oppose the sale of the Emergency.[10]

The Austrian Federal Ministry for Science and Trade, under the Austrian telecommunications law, likewise authorized construction, operation, marketing, sale, and ownership of the Emergency.[11] The German Posts and Telecommunications Regulatory Body also authorized sale of the Emergency after extensive testing.[12] And both the Civil Aviation Authority and the Radiocommunications Agency of the United Kingdom too granted their approval for the sale of the Emergency.[13]

Field Testing and Actual Activation: The Emergency has been extensively tested both in the laboratory and in the field. In 1995, the Emergency was tested in the annual Search and Rescue Exercise conducted by the Civil Aviation Department of the Government of Hong

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[9]See Exhibit B.

[10]See Exhibit C.

[11]See Exhibit D.

[12]See Exhibit E.

[13]See Exhibits F, G.

Kong.[14] The Emergency was used in a rescue at sea; its signal was detected by a plane flying at an altitude of 2000 feet at a distance of 23 nautical miles; the signal was strong enough to give a homing "needle" indication at a distance of 14.5 nautical miles.[15]

In November 1997, the Emergency was tested in actual conditions by the Association Départementale des Radio-Amateurs au service de la Sécurité Civile in Lyon, France.[16] The reaction of the testers was enthusiastic: "The speed of intervention of the helicopters and the accuracy of their fixes only confirmed the transmission quality of the BREITLING EMERGENCY device."[17] "The signal sent by the Emergency device is described as being 'easier to find' than a Joliette or Socata beacon. The theoretical difference in power from these beacons did not appear in their readings."[18] The Emergency has also been successfully tested by the Swiss Office of Civil Aviation.[19]

Finally, the Emergency was activated on one occasion in a situation of genuine distress. A rafting expedition in the Southern Pacific Ocean off the coast of Chile went awry. One of the members of the 13-person expedition was wearing an Emergency watch, and he activated it. The

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[14]See Exhibits H, I.

[15]See Exhibit I.

[16]See Exhibit J.

[17]Id.

[18]Id.

[19]See Exhibit K.

signal was detected by the Chilean navy, and, as a result, the lives of the members of the expedition were saved.[20]

RELIEF REQUESTED

Breitling seeks to make the Emergency available in the United States to pilots and to others who would benefit from the added aviation security that the Emergency provides. The Emergency is a radiofrequency device because it is "capable of emitting radiofrequency energy." 47 C.F.R. § 2.801. Therefore, Breitling believes that it must obtain equipment authorization to offer the Emergency for sale in the United States. See id. § 2.803(a)(1).

Ordinarily, a 121.5 MHz ELT would be subject to certification pursuant to parts 2 and 87 of the Commission's rules. See id. §§ 2.907, 87.145, 87.147.[21] If the Emergency were a conventional ELT, the process of certification would be straightforward. Because the Emergency is not a conventional ELT, however, Breitling has filed this request for waiver in order to obtain relief from certain definitional and technical requirements set out in the Commission's rules governing ELTs.

Despite its small size, the Emergency largely complies with the Technical Requirements for 121.5 MHz ELTs set forth in the Commission's rules, 47 C.F.R. §§ 87.131-87.147. The quality of the signal emitted by the Emergency greatly exceeds the tolerance requirements set

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[20]See Exhibit L.

[21]This process of equipment authorization used to be referred to as "type acceptance"; the Commission's rules were amended and this terminology was thereby changed. See Report and Order, Amendment of Parts 2, 15, 18 and Other Parts of the Commission's Rules to Simplify and Streamline the Equipment Authorization Process for Radio Frequency Equipment, 13 FCC Rcd 11415 (1998).

forth in section 87.133; the bandwidth of the signal complies with the requirements of sections 87.135 and 87.137; the attenuation of the power of emission complies with section 87.139(h); and the modulation characteristics of the signal comply with section 87.141(g). This compliance should be considered essential, for the main benefit of the Emergency is that its excellent signal quality greatly aids the localization efforts of search and rescue aircraft tuned to the 121.5 MHz frequency.

However, there are certain requirements that apply to conventional ELTs that the Emergency — as a supplemental safety device — should not be required to meet. First, the Emergency does not fall strictly within the definition of "Emergency Locator Transmitter" set out in sections 87.5 and 87.193 of the Commission's rules. Unlike an ELT, the Emergency is not actually installed in "an aircraft or a survival craft." 47 C.F.R. §§ 87.5, 87.193. And, because the Emergency is a personal survival instrument, it does not comply with the transmitter control requirements of section 87.143. Likewise, the Emergency cannot comply with the labeling requirement of section 87.147(b), which requires that ELTs display a label indicating that the device "Meets FCC Rule for improved satellite detection." Indeed, the ELT is not intended primarily to activate rescue operations, but instead to assist in localization efforts once a search and rescue operation is underway.

In addition, purchasers of the Emergency would not be required to obtain a station license as is generally required for devices in the aviation services. Id. § 87.18. However, Breitling believes that no waiver of this rule is required in order to market the Emergency, because the device is intended for use only in situations of genuine distress. The FCC's rules, as well as the

Radio Regulations of the International Telecommunication Union, foresee that, in case of emergency, a transmitter may be used notwithstanding licensing restrictions.[22]

To the extent that the Emergency fails to comply with any of the technical requirements of the Commission's rules, the Commission should grant a waiver to permit certification of the Emergency notwithstanding these points of divergence. The legal standard for granting such a waiver is well settled. Under section 1.3 of the Commission's rules, the FCC may grant a waiver "if good cause therefor is shown." 47 C.F.R. § 1.3. The FCC should therefore grant a waiver if it is in the public interest and if the "grant of the waiver does not undermine the policies set forth by the Rule."[23] The FCC may not reject an application out of hand simply because it does not conform with the Commission's rules.[24]

A waiver to permit certification of the Emergency would be in the public interest for two related reasons. First, the Emergency provides a supplemental safety device that can save lives that would otherwise be lost because of the deficiencies with conventional ELTs. Second, the Emergency is designed in such a way as to promote search and rescue efforts without placing

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[22]See 47 C.F.R. § 87.43 ("A station may be used for emergency communications in a manner other than that specified in the station license or in the operating rules when normal communication facilities are disrupted."); Reg. No. 2932, RR37-1, § 3(1) ("No provision of these Regulations prevents the use by a mobile station or mobile earth station in distress of any means at its disposal to attract attention, make known its position, and obtain help."); Reg. No. 347, RR6-2, § 9 (similar); Reg. No. 2933, RR37-2, § 3(2) (similar).

[23]See Order, Enron Corporation; Request for Waiver of Sections 90.65(b), 90.203, 90.205 and 90.250 of the Commission's Rules to Permit Operation of a Meteor Burst Communications System, 4 FCC Rcd 1790, 1791, ¶ 9 (Private Rad. Bur. 1989) (citing Thomas Radio v. FCC, 716 F.2d 921 (D.C. Cir. 1983); WAIT Radio v. FCC, 418 F.2d 1153 (D.C. Cir. 1969)).

[24]WAIT Radio, 418 F.2d at 1158.

any undue strain on the search and rescue infrastructure. For these reasons, the Emergency promotes the policies that the part 87 rules are designed to promote.

Added Safety: The Emergency is designed to respond directly to the deficiencies of conventional ELTs. Most important, the Emergency is designed to be accessible to a crash survivor and to operate even after a crash that may have incapacitated the aircraft's own ELT.

Significantly, the Emergency complies with all of the durability standards set forth in the most recent FAA standards applicable to survival-type ELTs. The Emergency has passed the shock and impact tests set forth in TSO-C91a. These tests ensure that the Emergency is sufficiently robust to emerge from an air accident unscathed.

Just as important, the quality of the signal emitted by the Emergency is excellent, and has proven itself in the field and in an actual emergency situation. The testimony of the civil and military authorities who have tracked the Emergency's signal speaks volumes: there can be no doubt that the Emergency can provide a valuable aid in localizing a crash survivor.

The quality of the Emergency's signal is particularly important because the time it takes to locate a downed aircraft once an alert has been received can make the difference between life and death. The purpose of the Emergency is not primarily to sound an alarm — in the case of air accidents, the fact that an aircraft is missing or overdue will often alert the search and rescue community to the need to initiate an operation. Indeed, because false alarms are so common, detection of an ELT's signal will not initiate a search and rescue response until some effort is made to confirm that an accident has occurred. The Emergency's value comes in the search phase of a search and rescue operation, helping to guide search vehicles and aircraft to the actual crash site. The importance of the ability to transmit a 121.5 MHz signal during this phase of the

rescue operation is difficult to overstate: the FAA indicates that the average time required to find a downed aircraft with a functioning ELT is 6.8 hours, compared to 40.7 hours without an operating ELT.

The FAA, in promulgating TSO-C91a, determined that 23 to 58 lives each year are lost due to the failure of conventional ELTs to operate. Even if 100 percent of ELTs complied with TSO-C91a, the FAA predicted a decrease in the failure rate of 64 percent — indicating that there is significant room for the Emergency to contribute to further reductions in loss of life — even if older ELTs were immediately replaced. Given that ELT replacement will take place gradually over time, the potential contribution that the Emergency can make on a short-term basis is immense.

To be sure, not every pilot or private aircraft passenger will choose to take advantage of the Emergency's potential benefits. But already Breitling has received numerous inquiries from pilots and from aviation organizations seeking information about acquiring an Emergency watch. Indeed, in the short time that the Emergency has been available for purchase elsewhere in the world, it has already contributed to saving 13 lives in the case of the raft expedition off the Chilean coast. With the Emergency available in the United States, American pilots will be afforded the same added security that is available to pilots elsewhere.

Avoidance of False Alarms: A second major disadvantage of conventional ELTs is their high rate of false alarms. Generally speaking there are two types of false alarms — accidental alarms that are due to design defects with conventional ELTs or inadvertent misuse. Such accidental false alarms are virtually impossible in the case of the Emergency, as described above.

The part 87 rules, however, appear to be more concerned with prevention of a different type of false alarm — deliberate misuse of 121.5 MHz transmitters. The Emergency was designed with this problem in mind, and both the instrument and its market help to ensure that deliberate misuse is kept to a minimum. Most important, the Emergency is always available, but it can be deployed only one time. After the antenna is deployed and the transmitter is switched on, there is no way to replace the antenna without returning the device to Breitling for reconditioning. And, while the transmitter can be disabled after deployment by cutting the antenna or by winding it around the body of the watch, there is no way to switch the device off. If the transmitter is deployed in a non-emergency situation, the reconditioning of the device is very costly — half as much as the original cost of the device or more. Users thus have two important built-in disincentives to abusive deployment — first, the Emergency will no longer be available in the case of genuine need until it is reconditioned; second, that reconditioning is very costly.

Moreover, the marketing of the Emergency is intended to educate consumers and to ensure that they will deploy the transmitter only in appropriate circumstances. Retail distributors of the Emergency must be trained and certified, and each consumer is required to read and subscribe to the Conditions of Sales. Those Conditions of Sales make clear that "[t]he transmitter cannot be activated, except in clear situations of distress occurring exclusively in the context of aeronautical activities."[25] The consumer is also informed that improper use "may

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[25]See Exhibit A.

involve penalties and lead to substantial financial expenses, in addition to the cost of rescue operations provoked by the signal of the transmitter."[26]

Common sense suggests that abuse of the Emergency will be rare — the practical and financial consequences of such abuse are clearly sufficient to deter deliberate false alarms. But the Commission need not rely on common sense: the Emergency has been available for sale in Europe and elsewhere around the world since 1996. Several thousand Emergency watches have been sold. In that time there has been no reported case of a false alarm anywhere in the world triggered by the Emergency. By contrast, ELTs have triggered thousands of false alarms in the United States alone during the same period of time. That experience shows that the potential cost of the Emergency, in terms of the burden it places on the search and rescue infrastructure, is truly de minimis, in absolute terms and especially in comparison to the greater safety that the Emergency promises.[27]

The Emergency Is Not a "PELT": The Commission has previously considered and rejected the possibility of establishing a new frequency for Personal Electronic Locator Transmitters ("PELTs").[28] In rejecting the proposal, the Commission noted that creation of a new

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[26]Id.

[27]If the Emergency were used to trigger a false alarm, the individual who had misused the device could be sanctioned. See James Scott Martin, 7 FCC Rcd 3524 (1992). In addition, the Commission could revoke equipment authorization if the Emergency proved to be the cause of significant disruption. Breitling is confident that this will not be the case.

[28]See Notice of Proposed Rule Making, Amendment of Parts 0, 1, 2, and 95 of the Commission's Rules regarding the establishment of a Personal Emergency Locator Transmitter Service, 4 FCC Rcd 8657 (1989); Memorandum Opinion and Order, Amendment of Parts 0, 1, 2, and 95 of the Commission's Rules regarding the establishment of a Personal Emergency Locator Transmitter Service, 6 FCC Rcd 4813 (1991).

search and rescue infrastructure on a new frequency would be impractical. Additionally, the search and rescue community was concerned that "system abuse and false alarms" would place an undue burden on search and rescue resources. "The potential of millions of PELTS mobiles sold to the general public caused concern that users would be prone to 'try out' their units and reporting emergencies that in fact do not require assistance."[29] The Emergency does not raise the same concerns.

The Emergency relies on existing infrastructure: As an initial matter, the Emergency relies on an established frequency and an established search and rescue infrastructure. The 121.5 MHz frequency is used worldwide for distress beacons both in the aviation and maritime services.[30] In the event that an alarm is raised and a search and rescue operation is commenced, aircraft can make use of existing detection equipment to detect and to track the Emergency's signal. As field tests demonstrate, the Emergency's signal is of excellent quality and provides a significant aid to such localization efforts.

The Emergency is intended for use in connection with aviation: The PELT proposal foresaw the wide distribution of a device that could be used by individuals in any situation of distress — perhaps most typically by hikers and campers who had lost their way.[31] The Emergency was not designed for this purpose, and would not be appropriate for it. As an initial matter, the power of the Emergency is sufficient to initiate a search only in good conditions —

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[29]6 FCC Rcd at 4814, ¶ 7.

[30]See 47 C.F.R. § 80.313.

[31]See 4 FCC Rcd at 8657, ¶ 3.

buyers are informed that the power is not sufficient to initiate a search and rescue operation. Indeed, a hiker would be better off with a cellular phone in most circumstances than with the Emergency. For this reason, Breitling will market the Emergency solely as a supplemental safety device to be used in conjunction with conventional ELTs and similar devices.

To be sure, it is foreseeable that the Emergency may sometimes be used in situations of distress that do not involve aviation accidents.[32] For example, the Emergency was activated off the coast of Chile in connection with a maritime distress situation, rather than an aviation accident. This is hardly a drawback. The 121.5 MHz frequency is reserved for emergency situations, not exclusively for aviation emergencies. Because of Breitling's experience and connections with the aviation community, the Emergency has been designed and will be marketed to respond to concerns about the reliability of conventional ELTs. When the Emergency is properly used to save lives in other contexts, however, this is all to the good.

The Emergency will not be subject to abuse: Unlike a widely distributed "PELT," the Emergency is designed and marketed to ensure that consumers will not be tempted to abuse the device in situations that threaten only inconvenience, not genuine harm.

As a practical matter, highly portable devices are now available on the market that transmit on the 121.5 MHz frequency and are far less costly than the Emergency (and are also more powerful and therefore more likely to trigger a search and rescue). The Emergency offers pilots and other frequent flyers in private aircraft an added measure of security because it is worn

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[32]In Breitling's view, this is most likely to occur if a purchaser who anticipated possible need for the Emergency in the aviation context — an amateur pilot, for example — found himself or herself in a life-threatening situation outside the aviation context.

on the wrist and it is extremely durable. The general populace, however, is likely to find the Emergency too expensive to use as a safety device, particularly when the Emergency offers relatively little value outside the aviation context. Again, the Emergency is most useful once a search and rescue operation is underway. For all these reasons, the Emergency will not become subject to the type of abuse that caused the Commission to view the possibility of wide distribution of "PELTs" with disfavor.

The General Standard: In granting a waiver request, the Commission must articulate "an appropriate general standard" that would explain why the Emergency may be marketed though it does not fall neatly within any preexisting category of 121.5 MHz devices. Other manufacturers may attempt to duplicate Breitling's feat and design a watch that contains a 121.5 MHz transmitter. But only a device that meets certain demanding conditions should be approved. Breitling suggests that the appropriate general standard should reflect several factors:

The quality of the signal must conform to FCC standards: The Emergency has great life-saving potential in large measure because the signal it transmits is of excellent quality and therefore greatly assists the localization of a crash site, once a search and rescue operation is underway.

The device must be one-use only: One of the most significant deterrents to abuse of the Emergency is the fact that the device is a one-use only transmitter. If a device can be turned on and off, the temptation to "try out" the device is greater and the risk of false alarms is correspondingly much more of a concern.

The device must be designed to be worn on the body: One of the chief advantages of the Emergency is that it is worn on the wrist; as a result, when all other transmitters may be destroyed or inaccessible, a survivor will still have access to the Emergency.

The device must be marketed to educate consumers against abuse: The Emergency is sold only through authorized and specially trained retailers. The consumer must register and sign a statement acknowledging restrictions on the Emergency's use. Marketing information portrays the Emergency as a device to be used solely in connection with aviation accidents. The Commission should require a manufacturer to ensure that these marketing measures, or other measures of equivalent effectiveness, are in place before a 121.5 MHz device is approved for sale.

CONCLUSION

The Emergency can save lives, but only if it is made available to pilots and other frequent air travelers. The device is designed and marketed to ensure that it will provide these benefits without placing any undue burden on the search and rescue infrastructure. The Commission should permit its certification.

Respectfully submitted,

Michael K. Kellogg
Aaron M. Panner
KELLOGG, HUBER, HANSEN, TODD
& EVANS, P.L.L.C.
1301 K Street, N.W.
Suite 1000 West
Washington, D.C. 20005
(202) 326-7900
Counsel for the Breitling, U.S.A., Inc.

July 2, 1999

EMERGENCY

CONDITIONS OF SALES

The BREITLING EMERGENCY watch is equipped with a transmitter that operates on the 121.5 MHz. aeronautical distress frequency. Misuse of this transmitter will disrupt air traffic as well as the activities of rescue organizations. For security reasons, the sale of the BREITLING EMERGENCY is subject to the undertaking on the part of the purchaser to comply with the following provisions:

1 The BREITLING EMERGENCY can be sold and used only by individuals who have been informed and have accepted the terms and conditions of sales and the restrictions on use described in this document and in the "EMERGENCY INFORMATION" booklet.

2 The transmitter cannot be activated, except in clear situations of distress occurring exclusively in the context of aeronautical activities - by pilots or passengers of planes, helicopters, balloons, hot air balloons, airship, gliders, hang-gliders, para-gliders, ultra light aircraft and by skydivers.

3 Any misuse or use outside the aeronautical context of the BREITLING EMERGENCY transmitter-watch may involve penalties and lead to substantial financial expenses, in addition to the cost of rescue operations provoked by the signal of the transmitter, which shall be borne by the user. The owner of the BREITLING EMERGENCY watch shall be fully responsible for consequences of any misuse of the transmitter, including by third party. Neither BREITLING SA nor the distributor or seller can be held responsible for any misuse of the transmitter.

4 If the BREITLING EMERGENCY transmitter is used without distress, negligently, accidentally, unjustifiably or outside the aeronautical context, the reconditioning cost of the transmitter shall be borne by the owner of the watch, whether the watch is covered by warranty or not. The purchaser is informed that such reconditioning cost is at least equivalent to half of the suggested retail price of the BREITLING EMERGENCY watch.

5 In the event of legitimate use of the transmitter, justified by a situation of distress in the aeronautical context and certified by an official rescue organization, the BREITLING EMERGENCY watch shall be replaced at no cost in favor of the owner mentioned in this document.

6 The purchaser is informed that the function of the BREITLING EMERGENCY watch is to facilitate the location of the individual in distress but does not activate rescue operations.

7 The purchaser communicates to BREITLING SA the information requested below and undertakes to inform BREITLING SA of any change of ownership, theft, loss or destruction of the watch whose serial number appears on this document. Such information shall be used in compliance with Swiss data protection law and shall only be communicated to third parties in order to protect BREITLING SA or the sellers' interest for the purpose of enforcing the terms and conditions of this agreement.

MODEL REFERENCE ▶		SERIAL NUMBER ▶	
Last Name	First Name	Date of birth	Nationality .....
Street	No	City, Zip	Country .....
Occupation	Tel. (Home)	Tel. (Business)	Fax .....
Type of identification		N°	Country .....
Type of license		N°	Country .....

DATE ▶	RETAILER'S NAME AND DATE
.....	.....
SIGNATURE OF THE PURCHASER	SIGNATURE OF THE AUTHORIZED EMERGENCY SALESPERSON

BAKOM Bundesamt für Kommunikation

BREITLING S.A.
Mr. J.-P. Girardin
Technical Director
Postfach 1132
CH-2540 Grenchen

Biel, 2.5.96

Originator:	Tel. Nr.:	Our ref.:	Your ref.:
Thierry Rossé	+41 (01)32 28 55 19	323.1/95.0559.	F.P J.P. Girardin

Re: Order of Approval

Dear Sirs,

Please find enclosed the Order of Approval in regard to your application dated 22.6.95.

We would like to inform you that:

1. Art. 21 of the Verordnung über die Teilnehmeranlagen (TAV) (regulations governing subscribers' equipment) requires that the registered subscriber's installation must be identified with the following permanent, and easy to read, markings: registration number, make or mark of the manufacturer, type designation and serial or production batch number;

2. You must inform BAKOM of all changes to the identification per Art. 21 TAV, to your company, or to your address;

3. The registration is made out in your name and is not transferable, and you have the responsibility to ensure that all commercialized systems coming under this registration comply in every respect with those that are registered;

4. Each and every alteration and every application of the subscriber's installation different from what's on the registration certificate must be reported to BAKOM; a new registration may be called for.

5. BAKOM is entitled to check any time whether the subscriber's equipment that the licensee markets, or may market, as approved equipment complies with TAV, and to demand information about this from the licensee;

6. You will be sent an invoice by separate mail in respect of the administration charge, stated on the registration certificate.

We would ask you to use *"BAKOM-approved"* in your advertisements.

We trust we have helped you with this information, and meantime remain,

Yours faithfully,

Bundesamt für Kommunikation
Registration of Subscribers' Installation Department

p.p. Martin Kilchsperger
Deputy Departmental Head

Encs.:
- Certificate of Registration
- Application form for registration

BAKOM Bundesamt für Kommunikation

Order of Approval

By reason of Art. 34 ff of the telecommunications law (SR 784.10) and of the regulations governing subscribers' installations (SR 784.103.1) the Bundesamt für Kommunikation hereby decrees the following:

The applicant

BREITLING S.A.
2540 Grenchen
Switzerland

is hereby **granted approval** in respect of the subscribers' equipment.

Mark or indication of the manufacturer:	**BREITLING**
Item:	**Wrist watch with transmitter / test receiver**
Type description:	**Emergency / Test receiver**
Item number:	**E56121 / 109.121**
Manufacturer:	BREITLING S.A., Grenchen, Switzerland.

Technical Characteristics:

121.5 MHz; ERP 50 mW; 1 Channel; AM (A3X)

Test Report / Certificate of Conformity of the Manufacturer

Report/Cert. Nr.	Test Lab / Manufacturer	Date
FE 67.5032 B	Telecom / PTT	11.5.1995
FE 67.5033 B	Telecom / PTT	7.6.1995