

MIL-B-85130 (AS)
AMENDMENT 1
19 March 1982

MILITARY SPECIFICATION

BEACON, UNDERWATER ACOUSTIC
AIRCRAFT
GENERAL SPECIFICATION FOR

This amendment forms a part of Military Specification MIL-B-85130(AS), dated 27 November 1979, and is approved for use by the Naval Air Systems Command Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

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2.2.1: Add new paragraph "Other publications". The following document(s) form a part of this specification to the extent specified herein. The issues of the documents which are indicated as DoD adopted shall be the issue listed in the current DoDISS and the supplement thereto, if applicable.

AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI S1.8-1969 - Preferred reference quantities for acoustical levels

(Application for copies should be addressed to the American National Standards Institute, Inc., 1430 Broadway, New York, NY 10018)

PAGE 4

3.6.2, line 5: Delete sentence.

3.6.4, line 5: after "testing" delete rest of sentence.

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3.6.6, line 2: After "Article" delete rest of sentence.

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3.6.10(e): After "number" add "and manufacturer assigned sequential serial number".

3.6.11, line 6: Preceding "Holes" add "Class 'A' Beacons".

line 7: After "and" add "Class 'B' Beacons shall take 0.250-28 UNF (or Metric equivalent) cap screws".

3.6.13, line 8: Delete sentence beginning with "This" and substitute "Lithium batteries shall not be used".

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3.7.2: Delete.

3.7.3: Delete paragraph and substitute "Explosion-proofing. - Assembled units, including units assembled incorrectly with non-watertight or non-gastight access covers, shall be explosive proof. They shall not cause ignition of an ambient explosive gaseous mixture with air after having been in such an atmosphere for a period long enough to be permeated by such atmosphere. This requirement shall not include the out-of-aircraft maintenance period for power source replacement. (V-43.b)"

3.7.4, line 1: Delete "encapulation" and substitute "encapsulation".

line 3: Delete "(not a requirement)".

3.7.5, line 3: After "aircraft" add "except when a delay (3.7.15) in activation (3.9.1) is set".

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3.7.8, line 6: Delete "of" and substitute "or".

3.7.9, line 1: Add comma after "volume".

3.7.10, line 6: Delete "force not exceeding 2268 kgm" and substitute "total superimposed crushing load on the mount or beacon case strong points or boundaries not exceeding 2268 kg for a maximum of three seconds."

3.7.13, line 2: After "maintenance" add "(see Dimension A' in Figure 1)."

3.7.14, line 2: After "source" delete to end of sentence.

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3.7.16: Add new paragraph "Provision for delay component. The mount and beacon shall be constructed in such a manner that a removable (add-on) delay in activation subassembly may be installed without increasing the overall mount/beacon interface envelope detailed in Figure 1, if the delay capability was not already incorporated in the basic design."

3.8, line 13: Delete "affects" and substitute "effects".

3.8.1, line 3: After "depletion" add "(definition 6.9.2)".

line 4: After "Life" add "to less than that".

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3.8.1(e), line 1: Delete "conpartment" and substitute "compartment".

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3.9.1, line 2: After "entry." add new sentences "The beacon shall be capable of set delays of up to but not limited to 64 days with the addition of an attachment (if not built-in). A delay is not required in the basic beacon unit."

3.9.2, line 2: Delete "peak". After "level" add "(definition 6.9.1)".

line 4: Delete "VII-2" and substitute "VII-3".

3.9.3, line 1: Delete "The output is continuous wave (CW)."

3.9.4, line 1: After "4" add a new sentence "The output shall be continuous (CW) during the pulse period."

3.9.7, line 3: After "thereto" add "The life shall not decrease more than 0.695 percent per day of delay when a delay feature is activated".

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4.7, line 2: Delete "(100%)" and substitute "(100 percent)".

line 6: Delete all after "the" and substitute "Cognizant Field Activity (CFA)."

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5.8, line 4: Delete "Parital" and substitute "Partial".

line 5: Delete "partial" and substitute "partially full".

5.11.1, line 6: After "each" add "single".

line 7: Delete "/or".

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6.2, line 1: Delete "Procurement" and substitute "Acquisition".

(b), line 2: Delete "and/" and add "or both". after second "number".

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(j)(i), line 5: After "representative" add ", Cognizant Field Activity (CFA)," and delete "Material" and substitute "Systems".

(j)(iii), line 5: Delete "power control current" and substitute "water immersion sensor monitoring current drain".

line 6: Delete sentence beginning with "Power" and ending with "drain." and substitute "See current definition in 6.9.2."

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6.2(k), line 1: Before "Systems" add "Cognizant Field Activity (CFA),".

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6.2, column headings: Add "Ordering Data (Con't).....Paragraph".

6.2(m) (continued): Add new subparagraph "(vi) Cognizant Field Activity (CFA) for Acoustic Beacons." and in Paragraph column add "6.2(j)(i)&(k)".

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6.4, line 4: Delete "Armed Services Procurement" and substitute "Defense Acquisition".

(a), line 1: Add "(See Group A, Figure 3)".

(b), line 1: Add "(See Groups B, E, and F, Figure 3)".

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6.4(b) (continued), after first paragraph: Add new paragraph "Field test unit and special tools, one set to be returned to contractor on completion of test."

(c), line 1: Add "(See Group G, Figure 3)".

6.5(b): Following "bulkhead," add "or event/performance/voice recorder securely attached thereto,".

6.6(b), line 2: Add at end "and will not be conducted in a potential explosive atmosphere or in an aircraft,".

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6.6(h): Add new paragraph "after 20 years of service will be recertified under original acceptance requirements".

6.9: Add new paragraph: "Definition" and subparagraphs "6.9.1 Acoustic sound pressure level - Shall be as defined in ANSI S1.8-1969 and shall be the rms-pressure level." and "6.9.2 Water immersion sensor monitoring current drain - Shall be the power source depletion resulting from circuit losses incident to maintaining a sensor active during the Non-Operating Service Life (3.8.1) to detect water immersion and as a result activate or switch on the beacon. Alternate terms include: off current, switch current, and power control current."

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Table I, Class columns, Delete columns A2, A3, B2, and B3.

Beacon and Mount Characteristics column: Delete "Sound Pressure Level (Peak) MIN" and four items listed thereunder and substitute "Sound Pressure Level MIN (See 6.9.1), Starting Life 160.5 db//luPa, Ending Life 157 db//luPa, Starting Life 163 db//luPa, Ending Life 160.5 db//luPa" in sequence.

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Interface, first subparagraph: Delete and substitute "Length 128.6, width 51.1, height 43.7 all max.; 4 mounting holes 4.864 + .064 dia., centers 38.1 + .127 X 60.95 + .127 square and centered; beacon to mount securing hardware extending 6.35 max. from one end and delay subassembly provision 6.35 max. from other end."

second subparagraph: Delete and substitute "Length 159, width 63.8, height 65.4 all max.; 4 mounting holes 6.629 + .076 dia., centers 50.8 + .127 X 76.2 + .127 square and centered; beacon to mount securing hardware extending 6.35 max. from one end and delay subassembly provision 6.35 max. from other end."

Material: Delete: "Beacon Case Mounts"; and substitute: "Beacon Case and Mount".

Delete: "Stainless Steel, unspecified, Titanium, and unspecified."

Weight Maximum: Add "grams" after "Weight".

Delete last four items "525, unspecified, 500, and unspecified".

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Table III, Operating Underwater line, Altitude/Depth column: Delete "6.1km" and substitute "5486m".

Pressure column: Delete "61.2MNm²" and substitute "55.2MNm²".

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Table III, Vibration column, Captive Flight line: Delete 0.18DA" and substitute "4.57mm DA"; and delete 0.044DA" and substitute "1.118mm DA".

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Table IV: Add new method

<u>"Requirement Paragraph</u>	<u>Inspection/ Test</u>	<u>Configuration</u>	<u>Method Number</u>	<u>Method</u>
3.7.15 3.9.1	Delay capability and interface	Beacon and Mounting Assy. with power source and delay provision installed	IV-16	Demonstrate setting and assembly of delay capability in beacon and mount. Demonstrate that the assembly falls within the interface envelope. Present documented/witnessed delay performance information for inspection."

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Table V, Method Numbers V-33.a, b, and c, Inspection/Test column: Delete "Operational Life" and substitute "Non-Operating Service Life".

Method Number V-33.b, Method column, line 1: Add a minus sign in front of "23".

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Table V, Method Numbers V-33.d, e, and f, Inspection/Test column: Delete "Operational Life" and substitute "Non-Operating Service Life".

Method Number V-33.d, Method column, line 2: Delete "not" and substitute "in addition to".

Method Number V-33.f, Method column, line 2: Delete "switch current" and substitute "water immersion sensor monitoring current drain".

line 3: Delete "(iv)" and substitute "(iii)".

line 6: Delete "and/".

line 7: After "Function" add "or both".

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Table V, Method Number V-37, Method column, line 2: After "loads" add ", each for a period of three seconds."

line 5: After "shall" add "then".

line 7: Delete ", while under test."

The test shall last a minimum of 10 seconds."

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Table V, Method Numbers V-39.b and d: Delete "61.2" and substitute "55.2".

Method Number V-40, Inspection/Test column, line 1: After "Operating" add "Service".

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Table V, Method Number V-41.a, Method column, line 6: Delete "and/or more" and substitute "and no more than".

Method Number V-42: Delete entire test method in all columns.

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Table VII, Method Number VII-3, Method column, line 4: Delete "61.2" and substitute "55.2".

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Table VIII, °C to °F: Delete "-66 -86.8 and +10 +50"; change "+" in front of "23 + 2" to "+"; and add "-23 + 2 9.4 + 3.6".

mm to inches: Delete "4.8514 0.191, 5.6 7/32, 44.5 1 3/4, 63 2 1/5, 65.1 2 9/16, 103.6 4 5/64, and 304.8 12"; and add "0.064 0.0025, 0.076 0.003, 0.127 0.005, 1.118 0.044, 4.57 0.18, 4.864 0.191, 6.35 0.25, 6.629 0.261, 43.7 1.73, 51.1 2.01, 63.8 2.51, 65.4 2.573, 128.6 4.013, 159.0 6.26, and 305 12".

m to feet: Add "6.1 20, 5486 18000, and 30,000 98,430."

gm to oz: Delete "gm" and substitute "g"; delete "426 15, 482 17, 490 17.25, 1064 37.5, 1215 42.83, and 1234 43.5"; and add "430 15.2, 500 17.6, 525 18.5, and 1080 38.1".

MNm² to in. Hg: Delete "0.1 31.9."

kNm² to psi: Delete "30.3 4.4 and add 133 19.3".

MNm² to psi: Delete "61.8 8880" and substitute "55.2 8000."

km/hour to knots: Add new list "37 20".

db//luPa to Dynes/cm²: Delete 160 and substitute 160.5. Following listing add "(See 6.9.1)".

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Figure 1, forward end of illustrated shape: Label dashed extension of end "MAINTENANCE ACCESS END SECURING DEVICE(S) CLEARANCE" and show an additional dashed extension in the forward direction with a dimension A'. Label the A' extension "MAINTENANCE AND BEACON REMOVAL SPACE". Add a dashed extension at the opposite end with a dimension H. Label the H extension "FOR DELAY UNIT EXTENSION".

listing: Delete list and substitute

<u>Dimension</u>	<u>Class A</u>	<u>Class B</u>
A and A'	128.6 mm max.	159. mm max.
B	51.1 mm max.	63.8 mm max.
C	43.7 mm max.	65.4 mm max.
D	6.35mm max.	6.35mm max.
E	38.1 mm + .127	50.8 mm + .127

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Dimension

Class A

Class B

F
G
H

60.95 mm \pm .127

4.864mm \pm .064 dia.

6.35 mm max.

76.2 mm \pm .127

6.629mm \pm .076

6.35 mm max.

Preparing activity:

Navy - AS

(Project 5845-N069)

