

**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF FLORIDA  
PENSACOLA DIVISION**

IN RE: 3M COMBAT ARMS  
EARPLUG PRODUCTS  
LIABILITY LITIGATION

Case No. 3:19md2885

This Document Relates to All Cases

Judge M. Casey Rodgers  
Magistrate Judge Gary R. Jones

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**PRETRIAL ORDER NO. 44  
SUPPLEMENTAL PROTOCOL RELATING TO USE OF TECHNOLOGY  
ASSISTED REVIEW (“SUPPLEMENTAL TAR PROTOCOL”)**

Plaintiffs and Defendants 3M Company, Aearo Technologies LLC, Aearo Holdings, LLC, Aearo Intermediate, LLC, and Aearo, LLC, and any of their related or affiliated entities or individuals named as defendants herein (collectively, “3M Defendants”) jointly submit the following Supplemental Protocol to conduct supplemental Technology Assisted Review (“TAR”) of the unreviewed portion of the TAR Corpus<sup>1</sup>. The Court hereby adopts the parties’ Supplemental TAR Protocol as follows.

**I. GENERAL AGREEMENT**

- A. Pursuant to Paragraph 5 of Pretrial Order Number 12 (Dkt. 472) (the “TAR Protocol”), the Parties conducted a TAR Elusion Test of the Original TAR Tool Model used for Defendants’ document productions.

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<sup>1</sup> The TAR Corpus is defined in Pretrial Order No. 12, ECF No. 472 at 3-4.

- B. Although the Parties have met and conferred on multiple occasions, they have not reached agreement regarding the number of relevant documents in the Elusion Test Sample.
- C. In the spirit of cooperation and compromise to resolve any remaining disagreements and consistent with Paragraph 5(f) of the TAR Protocol, the Parties have agreed to take the following additional actions to identify responsive documents that might exist in the unreviewed portion of the TAR Corpus.
- D. Defendants agree to supplement the TAR reviews conducted to date pursuant to the terms of this Agreement.
- E. This Agreement supplements and supersedes any obligations contained in the original TAR Protocol with respect to validation of the Original TAR Tool Model. On completion of the steps detailed in the sections below, the Parties agree that the TAR process used in this case is reasonable and no further training of the TAR tool will be required. The Parties have met and conferred and cooperated to reach this resolution, and any documents produced hereunder are the result of that conferral, cooperation, and compromise. Plaintiffs agree that the timing of any productions resulting from this process are consistent with Paragraph 5(f) of the TAR Protocol and its contemplation of additional supplemental review and productions following the TAR Elusion test.
- F. Following training of the Supplemental TAR Model described herein, the Parties agree that for any additional data loaded to Defendants' TAR Corpus, Classification Scores will be generated for the newly added documents under the Original TAR Model and under the Supplemental TAR Model. Defendants will review any such newly added document assigned a Classification Score at or above 56 under the Original TAR Model, or assigned a Classification Score under the Supplemental TAR Model at or above the lowest score of any document manually classified as responsive under the Supplemental TAR Model.
- G. For the purposes of Plaintiff review of documents under Sections III or IV of this agreement, Plaintiff Leadership may designate up to ten individuals (plus up to three consultants) to aid in the review, who will be given access to review any document sets.

## **II. SUPPLEMENTAL TAR MODEL**

- A. The Parties agree that Defendants will generate a Supplemental TAR Model to generate new TAR scoring that will be applied solely to the unreviewed portion of the TAR Corpus (*i.e.* documents whose scores under the original TAR Model fell below the Classification Score cutoff and were not reviewed for any other purposes).
- B. The Supplemental TAR Model will be generated using Xact Data Discovery's licensed TAR tool Relativity Active Learning, herein referred to as the Text Classification or TAR Tool. Text Classification leverages machine learning techniques to automatically assign a Classification Score to each document in the review population.

## **III. TRAINING FOR SUPPLEMENTAL TAR MODEL**

### **A. Supplemental TAR Model Training Sample Reviews.**

- 1. The Supplemental TAR Model must be trained following the Supplemental TAR Training Sample reviews described in this section.
- 2. Once the documents in each Supplemental TAR Training Sample Review set are identified, Defendants will have five (5) business days to review the documents to identify any documents that need to be withheld from each review set due to claims of privilege and work product protections.
- 3. Following Defendants' privilege review, the documents in each Supplemental TAR Training Sample Review must be released to Plaintiffs. Plaintiffs will have five (5) business days to conduct their review of those documents. After those five (5) business days, the Parties will exchange the lists of documents each Party has identified to be Relevant and Not Relevant. The Parties must meet and confer in good faith for three (3) business days following the exchange of these lists to reach agreement regarding any disputes regarding the Relevant/Not Relevant determinations for any specific documents.

4. The Supplemental TAR Model will be trained with the documents the Parties agree are either Relevant or Not Relevant from the following Supplemental Training Sample review sets. To the extent the Parties in good faith cannot agree to specific documents as either Relevant or Not Relevant, such documents must be submitted to the Court for a determination of responsiveness.
5. The three (3) Supplemental TAR Training Review Sets will consist of the following documents identified by Defendants' vendor Xact Data Discovery:
  - a. A random sample of 900 documents from the set of 250,000 documents with the highest Classification Scores below the cutoff within the Original TAR Tool Model, excluding documents with Classification Scores of 50 within the Original TAR Tool Model;
  - b. A random sample of 100 documents with Classification Scores of 50 within the Original TAR Tool Model; and
  - c. A random sample of 100 documents drawn from each of the five (5) search term buckets reflected in Schedule A hereto. For the sake of clarity, Defendants do not agree or concede that the search terms or concepts reflected in Schedule A are indicative of the actual relevance of individual documents. Defendants further reserve the right to dispute the actual relevance of documents that hit on these terms or relate to these concepts.

**B. Additional Supplemental TAR Training Sets.**

1. The Supplemental TAR Model must also be trained using the following sets of additional documents.

2. Original TAR Model Elusion Test Sample.
  - a. The Supplemental TAR Model must be trained using the following Original TAR Model Elusion Test Sample documents identified as Relevant solely for purposes of training the Supplemental TAR Model:  
SAMPLE\_00004183; SAMPLE\_00004202;  
SAMPLE\_00004821; SAMPLE\_00004829;  
SAMPLE\_00005009; SAMPLE\_00005340;  
SAMPLE\_00005387; SAMPLE\_00005397;  
SAMPLE\_00005578; SAMPLE\_00005602;  
SAMPLE\_00005603; SAMPLE\_00005609;  
SAMPLE\_00005629; SAMPLE\_00005636;  
SAMPLE\_00005646; SAMPLE\_00005652;  
SAMPLE\_00005724; SAMPLE\_00005739;  
SAMPLE\_00005769; SAMPLE\_00005787;  
SAMPLE\_00005888; SAMPLE\_00006031;  
SAMPLE\_00006093; SAMPLE\_00007474;  
SAMPLE\_00007500; SAMPLE\_00007506;  
SAMPLE\_00007827; SAMPLE\_00008348.
  - b. The Original TAR Model Elusion Test Sample document SAMPLE\_00006450 must not be used for purposes of training the Supplemental TAR Model.
  - c. The Supplemental TAR Model must be trained treating all of the remaining Original TAR Model Elusion Test Sample documents as Not Relevant.
3. The Supplemental TAR Model must also be trained using a randomly selected sample of documents identified as Relevant during Defendants' review in connection with the Original TAR Model. The number of randomly selected documents in this training set must be equal to the number of Relevant documents identified during the Supplemental TAR Training Sample reviews described in Section III.A.5 above.

#### **IV. SUPPLEMENTAL TAR MODEL SCORING AND SUPPLEMENTAL REVIEW**

- A. All documents in the unreviewed portion of the TAR Corpus will receive a Supplemental TAR Model Classification Score based on the Supplemental TAR Model training described in Section III above.
- B. Defendants will review tranches of 1,000 documents from high to low score priority based on these new Supplemental TAR Model Classification Scores consistent with Paragraph 8 of the TAR Protocol and the Supplemental TAR Model joint training by the Parties.
- C. Documents reviewed relevant or irrelevant in Supplemental Review will be added to the Supplemental Training Set and the Supplemental TAR Model will be updated accordingly. Each tranche of 1,000 highest-scoring documents, as described in IV.B, will be selected according to the most recently updated Supplemental TAR Model. Defendants will not update the Supplemental Training Set with documents selected by any other method absent agreement of the Parties.
- D. Defendants will review a minimum of 5,000 documents from a high to low Classification Score priority and then continue reviewing tranches of 1,000 such documents until: (i) reviewers find fewer than 45 Responsive documents in a 1,000 document tranche; or (ii) Defendants have produced an additional 32,500 documents from Defendants' Supplemental TAR Review.
- E. Defendants will notify Plaintiffs of the stopping criteria in IV.D. that led to the end of the review of documents identified by the Supplemental TAR Model. If Defendants notify Plaintiffs that Defendants have ceased review pursuant to stopping criteria IV.D(ii), then Supplemental TAR review on the present TAR document corpus will conclude.

- F. If Defendants notify Plaintiffs that they have ceased review pursuant to criterion IV.D.(i), then the Parties must jointly review (with disputed documents to be resolved by the Court) the next unreviewed 1,000 document tranche within three (3) business days. Unless the Parties' joint review identifies 65 or more relevant documents within that tranche, Supplemental TAR review on the present TAR corpus will conclude.
- G. If the Parties' joint review identifies 65 or more relevant documents within that tranche, Defendants will review at least 3,000 additional documents before notifying Plaintiffs they have again ceased reviewed pursuant to criterion IV.D.(i), and proceeding with the process under IV.E. If other criteria in IV.D. are met, however, before 3,000 additional documents are reviewed or the criterion in IV.D.(i) are met, then Supplemental TAR review on the present TAR document corpus will conclude.

**DONE** and **ORDERED**, on this 15th day of July, 2020.

*M. Casey Rodgers*

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**M. CASEY RODGERS**  
**UNITED STATES DISTRICT JUDGE**

**SCHEDULE A: Supplemental TAR Model Search Terms for Training Samples**

**1. CAEv2/Predecessor/Successor Product Design and Development**

<b>Search Terms</b>
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("0 NRR" OR "zero NRR")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("ComTac" OR "TEP-" OR "TCAP")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("Design review*")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("poor fit*" OR defect* OR Misfit* OR leak* OR ((lose OR loss OR lost) W/5 seal) OR Loosen OR fail*)
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("pull and push" OR "push and pull")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("shooting range" OR "loud noise")



Search Terms
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("spec sheet*" OR specification*)
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("ultrafit" OR Ultraflex OR "Tip")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (((DOD OR "Department of Defense" OR "Dept. of Defense" OR "Dept of Defense") AND "hearing conservation working group") OR DODHCWG)
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((attenuation* OR attentuation* OR attenuation*) W/5 test*)
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((Concha OR flexible) W/5 retainer)
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((Hearing W/3 (loss OR impairment OR damage)) OR Tinnitus OR NIHL OR ringing OR "ear injur*" OR "tympanic membrane rupture*")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((patent OR IP OR "intellectual propert*") W/10 (enforc* OR protect* OR expir* OR exten*))

Search Terms
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((Toggle OR togglable OR twist*) w/10 (design OR perform* OR Open OR non-linear))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Design W/5 (verification* OR validation* OR output*))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (filter* W/10 (thin* OR short*))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (fit AND (video* OR DVD OR Training OR education))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Proto* OR "new and improved")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (reat OR "Real Ear" OR "Real-Ear")

## 2. CAEv2 Manufacturing, Assembly, and Design Quality Assurance Issues

Search Terms
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (backward* W/10 (assembl* OR filter* OR "put together"))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Contract W/5 (No. OR number))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Etymotic* OR etomotic*)
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (quality W/5 (plan* OR assurance*))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Quote W/5 (No. OR number))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Waiver* AND ("out of spec" OR defect* OR ARC OR "Z-Box"))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND *Calibrat*

Search Terms
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND "*acceptable range*"
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND "manufacturing defect*"
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("Quality waiver*" OR "AS-IS")
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ("Z Box" OR "Z-BOX")
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND ((acoustic* OR accoustic* OR acustic*) W/20 (resistance OR impedance OR impedece))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (ARC W/5 (test* OR box OR boxes OR checker* OR resistance OR ohms OR mV OR impedance OR impedece))
("Combat Arms" OR CAE* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Box W/10 (impedance OR impedece OR resistance OR ohms OR mV OR acoustic* OR accoustic* OR acustic* OR atmospheric OR barometric))

**Search Terms**

("Combat Arms" OR CAE\* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (flash W/5 (filter\* OR stem\* OR insert OR inserts OR adapter\*))

("Combat Arms" OR CAE\* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Mexico W/10 (trip OR issue\* OR problem\* OR defect\* OR "out of spec" OR quality OR atmospheric OR barometric))

("Combat Arms" OR CAE\* OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" OR "closed end") AND (Pin OR Pins)

### 3. CAEv2 Marketing, Sales, and Distribution Issues

SEARCH TERMS
(("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (sale* OR sell* OR market* OR distribut*)) AND ("leave behind*" OR "Training Guide*" OR guidebook* OR "sell sheet*")
(("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (sale* OR sell* OR market* OR distribut*)) AND ("press kit*" OR "army magazine" OR "armed forces journal" OR "army times" OR "marine times" OR "military times")
(("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (sale* OR sell* OR market* OR distribut*)) AND (Cobra OR Offensive OR Blitz OR saturate)
(("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (sale* OR sell* OR market* OR distribut*)) AND (DOD OR "Dept of Defense" OR soldier* OR "armed forces")
(("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (sale* OR sell* OR market* OR distribut*)) AND (Fort OR Military OR Government OR Installation OR pentagon OR Quantico OR army OR navy OR marine* OR "air force")



#### 4. CAEv2 Labeling, Label Testing, Reteseting, and Regulatory Issues

SEARCH TERMS
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND "maximum allowable"
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND "peak reduction*"
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND "test panel*"
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND ("method b" OR "ANSI 12.6 (1997)" OR "ANSI 12.6(1997)" OR "s12.6")
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (("insertion loss") W/25 (limit* OR overestimate* OR drawback*))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (((firing OR shooting) W/5 range) AND (safety OR warning*))
("Combat Arms" OR CAE* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND ((*Test* W/5 stop*) AND (reat* OR attenuation* OR attentuation* OR attenutation*))

**SEARCH TERMS**

("Combat Arms" OR CAE\* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND ((Fold\* OR Flange\*) W/25 "wind noise\*")

("Combat Arms" OR CAE\* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (\*test\* OR label\* OR package\* OR NIOSH OR ANSI OR ANOR OR AHAH OR ARU)

("Combat Arms" OR CAE\* OR "ARC Plug" OR "indoor/outdoor" OR "Browning Duo" OR yellow-end OR "yellow end" OR green-end OR "green end" OR 370-100\* OR "non linear" OR non-linear OR "NI plug" OR "dual ended" OR "dual-ended" OR "open-end" OR "Open end" OR "closed-end" or "closed end") AND (Impulse AND (fit OR fitting OR seal\*))



**5. Company Policies re Design, Quality Assurance, Labeling, Label Testing, Retesting, and Regulatory Issues**

**SEARCH TERMS**

("Policy" OR "Policies" OR "standards") W/10 ("design" OR "quality assurance" OR label\* OR test\* OR regulat\* OR "NIOSH" OR "ANSI")