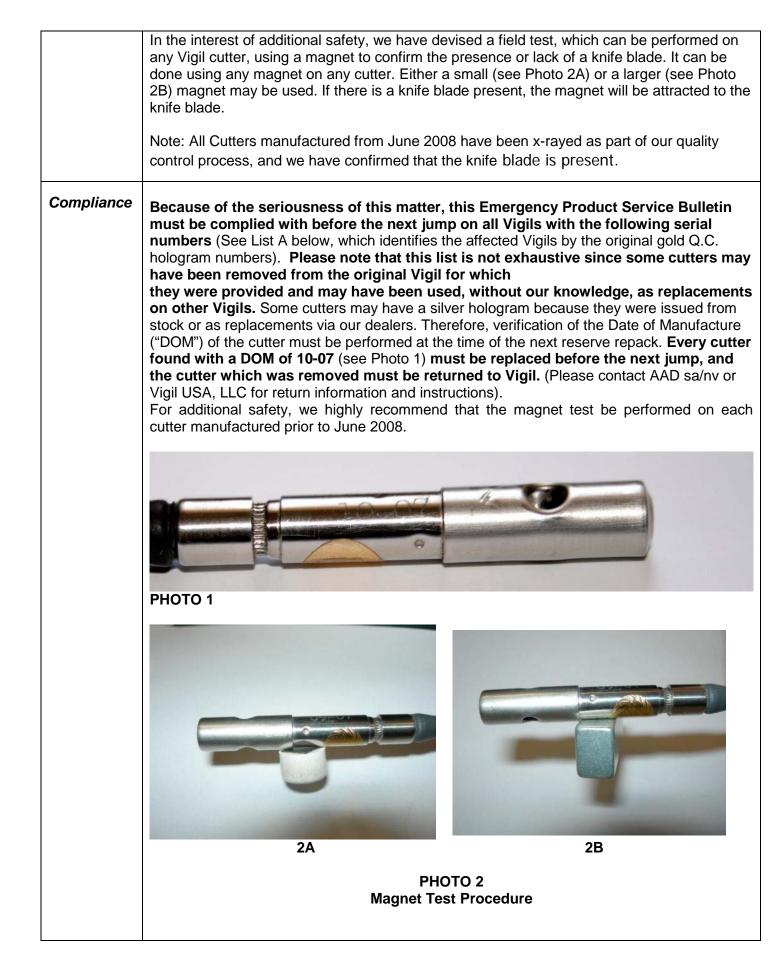
TECHNICAL & SAFETY COMMITTEE

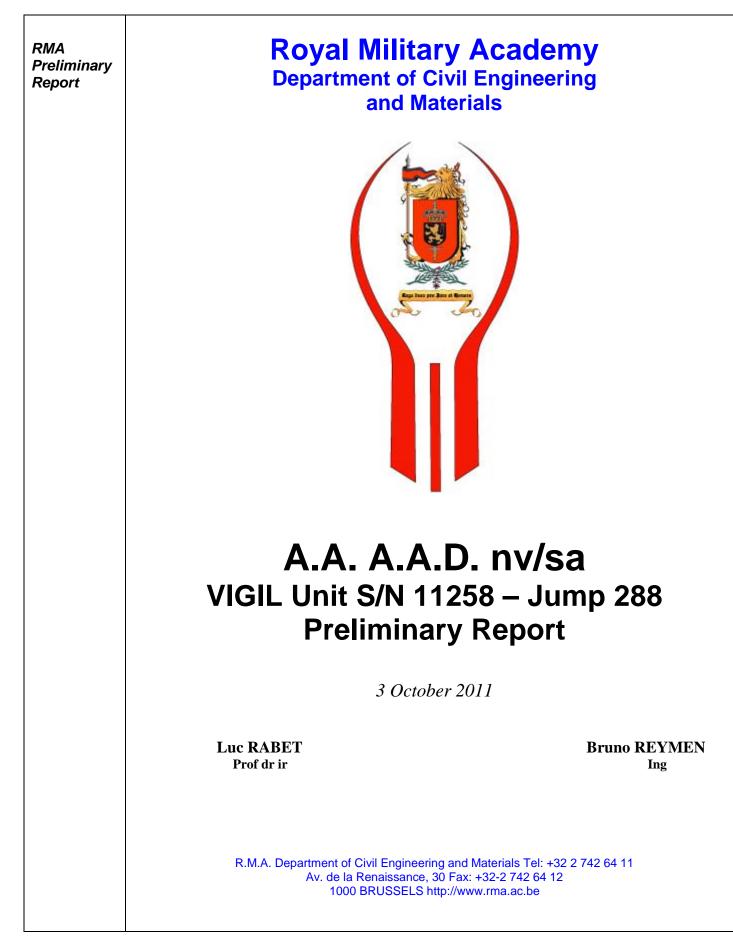


INTERNATIONAL PARACHUTING COMMISSION (FAI)

Technical & Safety Information Notice No.	05/2011 Virgil AAD W.N. 40
Date of Issue	06 October 2011
Subject Matter and Applicability	VIGIL AAD CUTTERS EMERGENCY PRODUCT SERVICE BULLETIN # PSB-7 SUBJECT: Inspection of Vigil AAD Cutters produced in October 2007. Part No 9582006 Date of Manufacture – 10-07 (mm-yy)
Background Information	 BACKGROUND: The following incident occurred on the 14th September 2011 at the Saint-Jean Chrysostome (Canada) drop zone. A skydiver failed to deploy his main canopy and manually pulled his reserve handle with insufficient altitude to fully deploy the reserve canopy. During the investigation of the incident it was discovered that the loop was neither cut nor trapped by the cutter. In the preliminary report prepared by the Royal Military Academy, it was stated that the knife blade was missing. (See the separate Royal Military Academy report.) Vigil R&D has confirmed that the electronics worked correctly and fired the cutter, but because of the absence of the knife blade, the closing loop could not be cut. This cutter was part of a production batch of 299 pieces, produced in October 2007. (See Photo 1.) A person other than the usual person at the relevant cutter assembly post was working at the post at the time during which the October 2007 batch was manufactured. The cutter manufacturer has confirmed that the failure to install the knife blade was caused by error during the cutter assembly process. This appears to be an isolated case. We are not aware of any similar assembly failure in any of the cutters from that batch have been A group of 15 cutters from that batch have been a group of 15 cutters from that batch have been A group of 15 cutters from that batch have been a group of 15 cutters from that batch have been a group of 15 cutters from that batch have been a group of 15 cutters from that batch have been a group of the reserter bach and to replace all those cutters free of charge. The removed cutter must be returned to AAD sa/nv or Vigil USA, LLC once the replacement cutter has been received. (Please contact AAD sa/nv or Vigil USA, LLC for return information and instructions). This will enable us to personally examine and analyze as many cutters as possible from this batch in order to verify that this, in fact, has been an isolated incident.



Device#	QC n°	Device#	QC n°	Device#	^t QC n°	Device#	QC n°	Device#	QC n°	Device
6239	H320	9269	L062	9352	L144	9445	L201	9513	L296	11261
7671	1855	9270	L063	9353	L145	9446	L202	9514	L297	11263
9207	L000	9272	L064	9354	L146	9447	L203	9515	L298	11264
9208	L001	9274	L066	9355	L147	9369	L214	9516	L299	11265
9209	L002	9275	L067	9363	L154	9393	L215	9517	L300	11267
9210	L003	9276	L068	9365	L155	9396	L216	9518	L301	11268
9211	L004	9277	L069	9366	L156	9397	L217	9519	L302	11269
9220	L010	9309	L099	9367	L157	9401	L218	9520	L303	11271
9221	L011	9310	L100	9370	L158	9402	L219	9521	L304	11272
9223	L012	9311	L101	9371	L159	9403	L220	9522	L305	11273
9224	L013	9312	L102	9373	L160	9404	L221	9523	L306	11274
9226	L014	9313	L103	9374	L161	9405	L222	9524	L307	11276
9227	L015	9314	L104	9375	L162	9406	L223	9525	L308	11277
9229	L016	9316	L105	9376	L163	9410	L224	9526	L309	11278
9230	L017	9317	L106	9377	L164	9411	L225	9527	L310	11280
9231	L018	9318	L107	9378	L165	9412	L226	9528	L311	11281
9232	L019	9202	L108	9379	L166	9413	L227	9546	L329	11282
9233	L020	9299	L109	9380	L167	9414	L228	9549	L332	11283
9236	L021	9301	L110	9381	L168	9416	L230	9550	L333	11285
9238	L022	9315	L111	9382	L169	9478	L264	9551	L334	11286
9241	L023	9319	L112	9383	L170	9479	L265	9552	L335	12518
9242	L024	9320	L113	9385	L171	9480	L266	9553	L336	12556
9192	L025	9321	L114	9386	L172	9481	L267	9554	L337	22756
9196	L026	9322	L115	9388	L173	9482	L268	9555	L338	22765
9194	L027	9323	L116	9389	L174	9483	L269	9556	L339	22766
9235	L036	9324	L117	9390	L175	9484	L270	9557	L340	22767
9239	L037 L038	9325	L118	9420	L176 L177	9485	L271 L272	9558 9559	L341 L342	
9240 9243	L030 L039	9326 9327	L119 L120	9421 9422	L178	9487 9489	L272 L273	9559 9560	L342 L343	
9243 9244	L039 L040	9327 9328	L120	9422 9423	L170 L179	9489 9490	L273 L274	9560 9561	L343 L344	
9244 9245	L040 L041	9328 9330	L121	9423 9424	L180	9490 9491	L274 L275	9563	L344 L345	
9243 9246	L041 L042	9330 9331	L122	9424 9425	L180	9491	L275	9564 9564	L345 L346	
9240 9247	L042 L043	9332	L123	9425 9426	L182	9492 9493	L270	9565	L340 L347	
9248	L043 L044	9333	L124	9420 9427	L183	9494 9494	L278	9566	L348	
9249	L044 L045	9334	L126	9428	L184	9495	L279	9567	L349	
9250	L046	9335	L127	9429	L185	9496	L280	9568	L350	
9251	L040 L047	9336	L128	9430	L186	9497	L281	8186	L361	
9252	L047	9338	L130	9431	L187	9498	L282	9612	L362	
9254	L040 L049	9339	L131	9432	L188	9499	L283	9633	L302 L406	
9256	L050	9340	L132	9433	L189	9500	L284	10702	M240	
9257	L050	9341	L133	9434	L190	9502	L285	10702	M240 M241	
9258	L052	9342	L134	9435	L191	9503	L286	11249	M654	
9259	L053	9343	L135	9436	L192	9504	L287	11250	M655	
926	L054	9344	L136	9437	L193	9505	L288	11251	M656	
9261	L055	9345	L137	9438	L194	9506	L289	11252	M657	
9262	L056	9346	L138	9439	L195	9507	L290	11253	M658	
9263	L057	9347	L139	9440	L196	9508	L291	11254	M659	
9264	L058	9348	L140	9441	L197	9509	L292	11257	M660	
9266	L059	9349	L141	9442	L198	9510	L293	11258	M661	
9267	L060	9350	L142	9443	L199	9511	L294	11259	M662	
9268	L061	9351	L143	9444	L200	9512	L295	11260	M663	



Preliminary Statement

We received the complete VIGIL unit S/N 11258 on September 22, 2011 and handled the electronic unit the same day over to A.A.D. nv/sa for the infrared download and analysis of the data that could have been stored in the unit's permanent memory during jump 288.

For the investigation of the cutter we decided to make an X-ray photograph. In this manner the cutter has not to be damaged and stays in its original form as he was found after the jump (X-Ray = NDI: Non Destructive Investigation).

We received from A.A.D. nv/sa also X-ray photos of cutters taken by the manufacturer and supplier STRESAU. STRESAU has made X-ray photos of every produced cutter as additional quality control started from the production of the cutters in June 2008.

The cutter in the Vigil unit S/N 11258 was produced in October 2007 (only a lot of 299 cutters) and thus before the extra quality control with X-ray photos.

However, we can compare a cutters X-ray of November 2009 with the received cutter of unit S/N 11258 that we have photographed. There are no changes in the design between October 2007 and November 2009.

The two X-ray photos on **figure 1** show a comparison of the two cutters.

On the left side of the figure we see an X-ray of a cutter produced in November 2009; in the middle of the figure the cutter of unit S/N 11258 after jump 288 that we have photographed. For the clearness we have added a normal photo of the cutter right on **figure 1**. On the bottom of **figure 1** we have added a second normal photo showing the DOM number (Date of Manufacturing): 10-07 or October 2007.

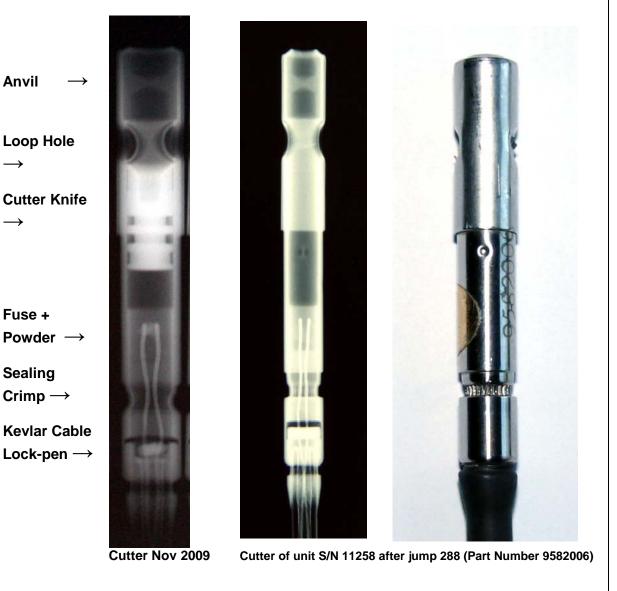
On the left X-ray photo we can clearly distinguish the different parts of the cutter:

- \Box the anvil on the top for the energy absorption of the cutting knife;
- \Box the loop hole;
- \Box the cuter knife;
- \Box the fuse (igniter) with the powder for the pressure generation;
- \Box sealing-crimp
- \Box Kevlar cable lock-pen

On the X-ray photo of the cutter of S/N 11258 we can see that the cuter knife is missing.

A.A.D. - VIGIL S/N 11258 – Jump 288 Preliminary Report

ROYAL MILITARY ACADEMY Department of Civil Engineering and Materials Brussels - BELGIUM





Date of Manufacturing (DOM): 10 - 07

Figure 1

A.A.D. - VIGIL S/N 11258 – Jump 288 Preliminary Report

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	ROYAL MILITARY ACADEMY Department of Civil Engineering and Materials Brussels - BELGIUM								
	Preliminary conclusions								
	A.A.D. nv/sa stated that this cutter is from the only batch of 299 cutters which were produced in October 2007.								
	The cutter from Vigil unit S/N 11258 is currently in the possession of the Royal Military Academy.								
	We have also performed a firing test on 15 cutters from that same production batch. All those cutters performed correctly to specifications and cut the loop without tension.								
	This investigation together with possible new elements will be covered in a final report.								
	In the meanwhile, it is absolute necessary that A.A.D. nv/sa performs a recall action of the 283 (299 – 16) cutters still in the field which were produced in October 2007.								
	A.A.D VIGIL S/N 11258 – Jump 288 Preliminary Report								
Note	The text above is a verbatim copy of the text of the AAD sa/v EMERGENCY PRODUCT SERVICE BULLETIN # PSB-7, dated October 4 2011 and that of the Preliminary Report of Royal Military Academy, Department of Civil Engineering and Materials, Av. de la Resistance, 30, 1000 Brussels, Belgium, dated 3 October 2011								
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The Technical & Safety Committee, International Parachuting Commission, can be contacted on e-mail - <u>Imcnulty@skydiveireland.ie</u>

Liam McNulty, Technical & Safety Committee, International Parachuting Commission. 08 October 2011