

M198 Cover Validation Test

Final Results – Preliminary Report

ENVELOP™ PROTECTIVE COVERS

30 September 2005

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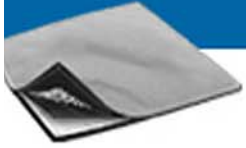




Summary

- On 30 August 2005, a 30-day test was initiated at Camp LeJeune, NC, to validate the performance of the Envelop Protective Cover on the M198 Howitzer. Howitzer 1573 was designated the test howitzer and had an Envelop Cover placed on it. Howitzer 1095 was designated the control howitzer with no protective covering.
- On 30 September 2005, the cover of the test howitzer was removed and a comparison was completed between the test howitzer and the control howitzer.
- Present were representatives from Shield Technologies, MARCORSYSCOM and 10th Marine Regiment including:
 - MSgt Santivasci, MSgt Martin, MSgt Lewis – 10th Marines Artillery Training School and Field Artillery Chiefs.
 - GySgt Hoffart - MARCORSYSCOM
 - Capt Chorzelewski 3/10, 1st Lt. Lash 10th Marines S-4A
 - Jeff Vold and Tom Nelson – Shield Technologies
- As the following photographs indicate, in the 30-day side-by-side comparison, the Envelop Cover dramatically reduced corrosion.
- A detailed report will follow by separate correspondence, including minor recommendations to the design in order to further enhance the Envelop Cover performance.





Validation Test Howitzers

Howitzer 1573 “Unforgiven”
With Cover



Howitzer 1095 “Death Reigns”
Without Cover



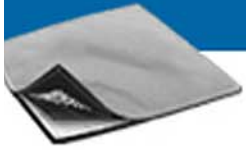
Breech

Howitzer 1573 "Unforgiven"
With Cover



Howitzer 1095 "Death Reigns"
Without Cover





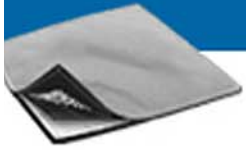
Muzzle Brake

Howitzer 1573 “Unforgiven”
With Cover



Howitzer 1095 “Death Reigns”
Without Cover





Upper Carriage

**Howitzer 1573 “Unforgiven”
With Cover**



**Howitzer 1095 “Death
Reigns”
Without Cover**





Bore

Howitzer 1573 “Unforgiven”

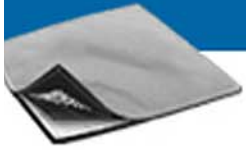
**With Cover - Cleaner Lubricant Preservative (CLP)
in Tube, no Corrosion Evident**



Howitzer 1095 “Death Reigns”

Without Cover





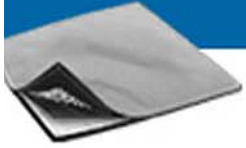
Equilibrators

Howitzer 1573 “Unforgiven”
With Cover



Howitzer 1095 “Death Reigns”
Without Cover





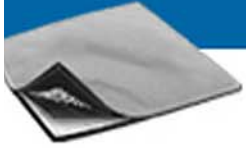
Elevating Screws

Howitzer 1573 “Unforgiven”
With Cover



Howitzer 1095 “Death
Reigns”
Without Cover





Conclusion

After documented use of only 30 days, the Envelop Protective Cover substantially reduced corrosion on the M198 howitzer. The test validated the conclusion that persistent, long-term use of Envelop Covers will minimize corrosion, thus reducing maintenance, increasing readiness, and extending the life-cycle of these expensive weapons.

For questions concerning this report, point of contact at Shield Technologies Corporation is Jeff Vold (Jeff.Vold@envelopcovers.com), phone number 763.370.4654. Points of contact at 10th Marine Regiment are MSgt Tristan (vincent.tristan@usmc.mil) or MSgt Santivaschi (michael.santivaschi@usmc.mil), phone number 910.450.8091.

