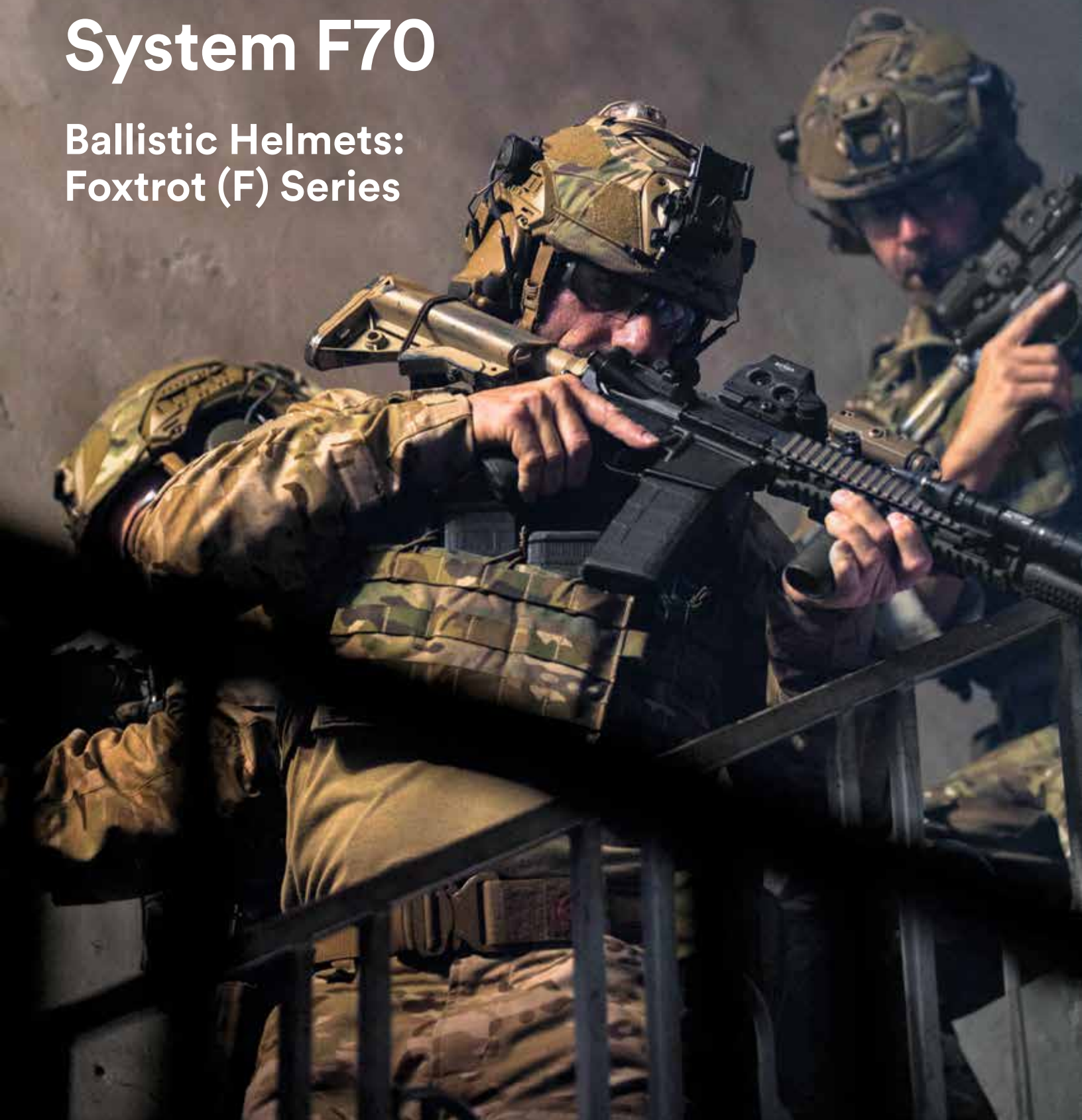


3M Science.
Applied to Life.™

3M™ Ballistic Helmet System F70

Ballistic Helmets:
Foxtrot (F) Series



At 3M, we are committed to pushing the boundaries of technology to save lives.

That's why we designed our newest ballistic helmet for multiple threat environments and broad use – for conventional military combat as well as special forces and law enforcement operations.



Maximized ballistic performance-to-weight.

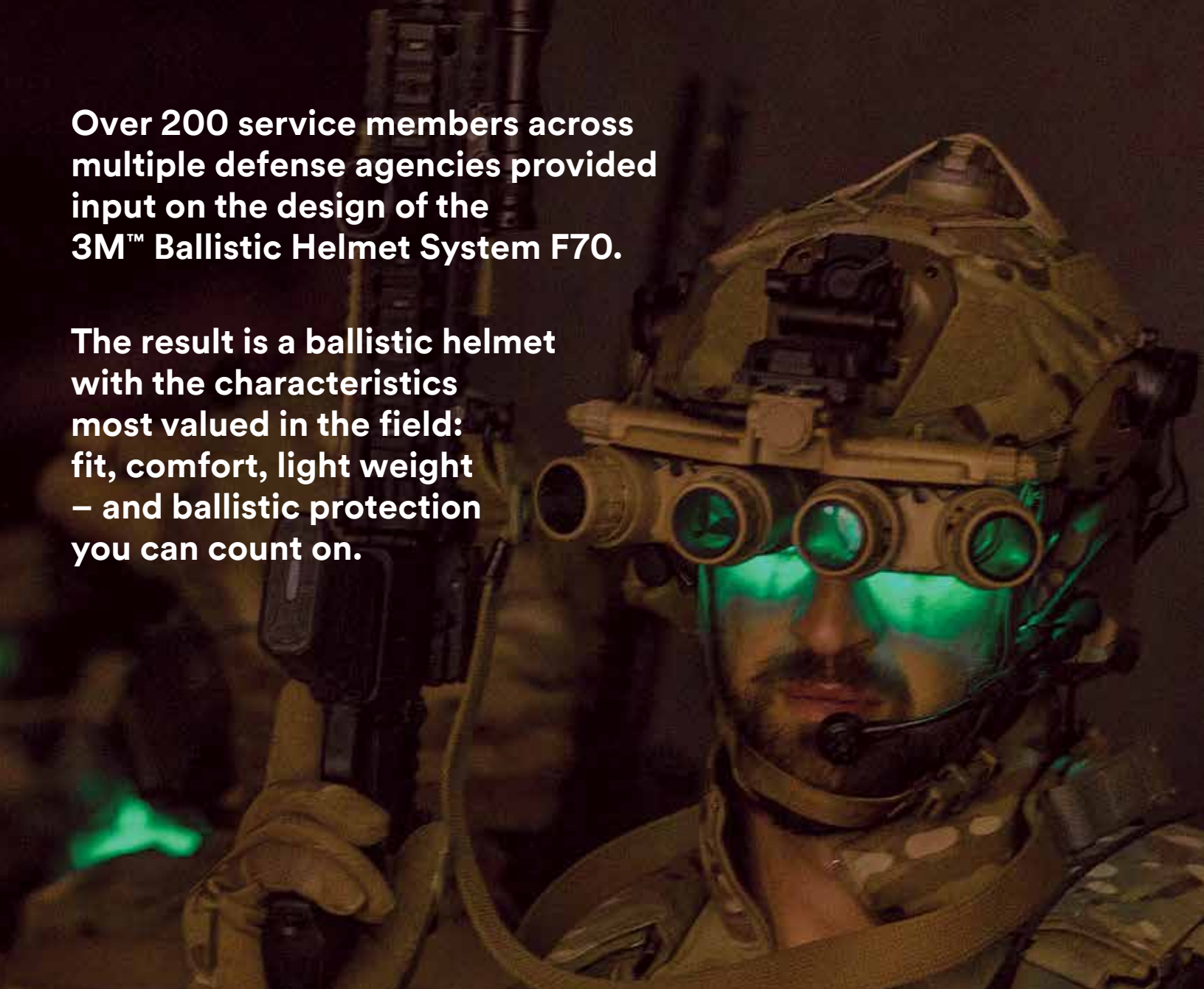
3M is a trusted global provider of innovative ballistic helmet solutions, delivering proven protection at an industry-leading light weight. The versatile 3M™ Ballistic Helmet System F70 builds on this tradition with a balance of protection and comfort.

3M™ Ballistic Helmet System F70

The F70 helmet provides a high-value combination of ballistic performance and low weight. The integrated and configurable helmet design is intended for broad use for conventional military combat as well as special forces and law enforcement operations.

- Innovative no thru-hole construction for improved ballistic shell integrity
- Modular system, mission configurable
- Optimized geometry for fit, stability and comfort





Over 200 service members across multiple defense agencies provided input on the design of the 3M™ Ballistic Helmet System F70.

The result is a ballistic helmet with the characteristics most valued in the field: fit, comfort, light weight – and ballistic protection you can count on.

Helmet Design

The F70 helmet provides a high level of protection at a light weight, with a comfortable and modular design that's well suited for a wide range of missions.

- Shell is manufactured with advanced Ultra-High Molecular Weight Polyethylene (UHMWPE) in a hybrid construction with structural Thermoplastic Composite materials
- Uses 3M proprietary advanced Thermoplastic Composite forming/molding process technology
- Helmet geometry is engineered for improved coverage of critical areas and increased comfort compared to conventional helmets
- No thru-hole construction for mounting the NVG shroud, retention system and rails
- Reverse dovetail rails accept common industry accessories
- Multiple accessories available including ballistic mandible and visor
- Compatible with 3M™ PELTOR™ Communication and Hearing Protection Solutions, goggles and gas masks



Mid Cut (Extended)

High Cut (Tactical)



- Maintains the coverage of the legacy Advanced Combat Helmet (ACH), with a modern, angular design
- Ear coverage angled to better support the use of over-the-ear hearing protection and to minimize interference when sighting a weapon
- Contoured around the user's head for excellent fit, stability and comfort

- Lightweight, versatile option for greater mobility and stability during tactical operations
- Excellent interoperability with over-the-ear hearing protection headsets
- Evaluated and determined suitable for the U.S. Air Force static line and military free-fall operations under the Test Parachute Program (TPP)

3M™ Ballistic Helmet System F70

Cut	Mid Cut (Extended), High Cut (Tactical)
Size	S, M, L, XL
Retention System	X-Back, Dial
Suspension System	7 Pad, 9 Pad, Berry Compliant
Color	Brown, Black, Green, Tan
Optional Accessories	Multicam Helmet Cover, Counterweight Pocket, Ballistic Mandible, Ballistic Visor, Helmet Bag, Picatinny Adaptor

The F70 helmet includes retention and suspension systems, rails, NVG shroud, bungee cords, and hook and loop appliqué. Additional accessories are available separately (see back page).

Contact your 3M representative for ordering information.

Modular and Configurable System

The 3M™ Ballistic Helmet System F70 is designed to support a variety of mission profiles. It accommodates standard accessories such as night vision goggles, oxygen systems, strobe lights, and communications.

Where full facial protection is required, such as for turret gunners, a protective mandible and visor can be easily attached and removed with a simple, single click. The visor utilizes the NVG shroud as an attachment point, and the mandible locks into the accessory rail.

- **Ballistic Mandible:** 17 gr .22 caliber FSP; V50 650 m/s (2130 ft/s)
- **Ballistic Visor:** 17 gr .22 caliber FSP; VØ 180 m/s (560 ft/s)



Ballistic Visor*

Attaches to the NVG shroud. Easy, one-hand attachment and removal. Coated to resist fogging and scratching.



3M™ NVG Shroud

Proprietary no thru-hole design, compatible for mounting common accessories.



Hook & Loop

Strong hold after frequent usage, positioned to address users' needs.

Accessory Rail

Reverse dovetail rail with a proprietary no thru-hole design accepts common industry accessories.

O2 and Counter-Weight Clips

Clip provisions are provided for NVG counterweight and O2 system masks (HAHO operations).

Ballistic Mandible*

Protects the user's face from blunt impact. Easy to attach/remove via rails on either side of helmet. 3M™ PELTOR™ ComTac™ communications systems are compatible with the mandible when attached to the helmet.

3M™ X-Back Retention System

Proprietary no thru-hole design with two-direction pull for stability and one-hand adjustment fasteners. Does not require a chin extension when using a respirator.

*Optional accessory

Improved Ballistic Shell Protection Area

Unlike conventional helmet designs, the 3M™ Ballistic Helmet System F70 features a novel no thru-hole construction for mounting the NVG shroud, retention system and rails.

The elimination of thru-holes increases the shell's effective protection area, reduces overall system weight, and eliminates the risk of bolts becoming secondary projectiles during ballistic events.



Coverage and Weight

The F70 helmet geometry is designed for improved coverage of critical areas at a far lighter weight than ACH specifications.

Finished shell weight with paint and trim

Size	F70 Mid Cut (Extended)	F70 High Cut (Tactical)
S	~1.75 lbs (0.79 kg)	~1.52 lbs (0.69 kg)
M	~1.78 lbs (0.81 kg)	~1.56 lbs (0.71 kg)
L	~1.89 lbs (0.86 kg)	~1.72 lbs (0.78 kg)
XL	~2.09 lbs (0.95 kg)	~1.85 lbs (0.84 kg)

The F70 Mid Cut design provides improved clearance for better fit of hearing protection devices, with equivalent protective head coverage.



F70
Mid Cut

31% weight reduction compared to ACH specifications for a finished shell.



ACH
Full Cut

The F70 helmet delivers the same coverage as the ACH helmet – at a lighter weight.



F70
High Cut

30% weight reduction compared to ACH specifications for a finished shell.



ACH
High Cut



Ballistic Fragmentation

The 3M™ Ballistic Helmet System F70 provides the following fragmentation protection when tested in accordance to STANAG 2920.*

17 grain .22 caliber FSP with V50 value >2,760fps (>840 m/s)

Meets or exceeds all US Army Advanced Combat Helmet (ACH) ballistic fragmentation requirements** for 2 gr, 4 gr, 16 gr and 64 gr RCC and 17 gr FSP when tested in accordance with MIL-STD662F.*

Blunt Impact Protection

Tested and evaluated with D3O® TRUST Nimbus™ and TRUST Stealth™ Helmet Pad Systems to DOT&E protocol in accordance with AR/PD 10-02, AR/PD 14-01 and GL/PD 09-04.



* Testing performed at a NIJ accredited laboratory
 ** AR/PD 10-02 (Latest version)

NIJ Threat Level

The F70 helmet has been tested in accordance to NIJ Standard 0106.01 for Ballistic Helmets to the following ballistic resistance.**

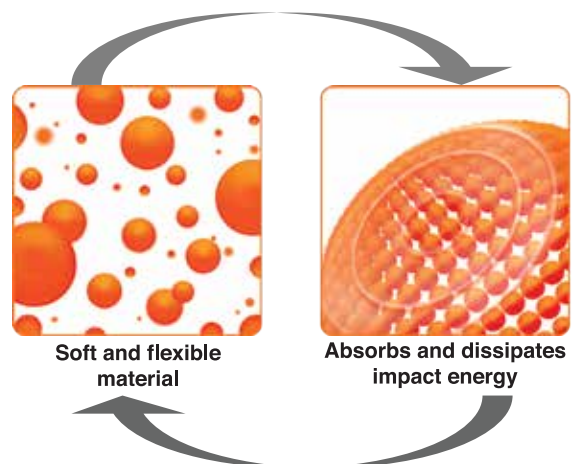
Level IIIA Helmet to NIJ 0108.01 IIIA Ballistic Threats

- 9 mm FMJ - 124 gr – 1400-1450 ft/s (430 m/s) (VØ)
- .44 Magnum - 240 gr – 1400-1450 ft/s (430 m/s) (VØ)

Back Face Deformation

- 9 mm Back Face Deformation (BFD) (9 mm FMJ: 124g, 1400–1450 ft/s, <25.4 mm)

3M has partnered with D3O® Labs to integrate their shock-absorbing, rate-sensitive materials with our ballistic solutions.



How **D3O®** technologies work

Optional Accessories



Helmet Cover
(Mid Cut or High Cut)



Ballistic Mandible



Counterweight Pocket (includes weights)



Helmet Bag



Ballistic Visor



Picatinny Adaptor

▲ WARNING

3M ballistic helmet products are for occupational use only. Only qualified and trained operators should use these helmets. Many factors uniquely within the user's knowledge and control can affect the use and performance of the helmet. The user is solely responsible for evaluating the helmet and determining whether the helmet is suitable for user's intended conditions of use. Misuse or failure to follow warnings and user instructions may result in serious personal injury or death.

Manufactured by Ceradyne Inc., a 3M company.

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Ceradyne Inc., a 3M company

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For more information visit
[3M.com/BallisticHelmets](https://www.3M.com/BallisticHelmets)
or call Technical Service at
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ah-ballistichelmets@mmm.com

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