

# Helmet Wear Test Protocol

Once properly adjusted to the user, the helmet attributes should be compared to the wearer's current helmet and the other helmets participating in the wear trial. These attributes should be compared while the helmets are worn during firefighting activities such as training, fireground and extrication. The following guidelines and questions will assist in comparing and assessing helmets during the wear trial period:

## COMFORT AND PERFORMANCE

### A. Protection

1. Wear the helmet during training, fireground and/or extrication activities.
  - Did any debris fall on helmet? If yes, how well did the shock absorption perform while wearing the helmet? Did you feel much impact?
  - Did your head feel warm?
  - Did your helmet remain in place with little to no movement or required adjustment by you during activity?

### B. Weight

1. Helmet weight needs to be determined by distribution of the weight on the wearer's head.
  - While wearing the helmet, does it feel top heavy?
  - Does the helmet pull head forward, backward or to the left or right when rotating or leaning head in any direction?

### C. Durability

1. Wear the helmet during training, fireground and/or extrication activities.
  - Can the helmet be flexed or are soft spots found on the helmet before or after exposure to heat? Softening of the helmet shell points to material degradation, so the helmet may not last as long as anticipated.
  - Is the helmet cracked, bubbled or peeled after exposure? If so, does the manufacturer have a warranty in place? Is the product fully backed by the manufacturer?

### D. Comfort

2. The helmet should be properly adjusted to the wearer's head.
  - Does the helmet feel balanced when the head is leaned forward, backward or side-to-side? Top heaviness or weight pulling the head in any direction noted above indicates overworked muscles, causing head/neck fatigue or headaches will shortly ensue.
  - Can you bend over without the helmet falling off your head?
  - Can the helmet be worn for extended periods of time without head/neck fatigue or headaches (20 minutes or longer)?
  - Are there pinch points caused by the headband when tightened?

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## E. Fit/Function

1. A properly fitted helmet can be determined by the following:

- To determine whether you have a properly fitting headband, hold your head still and rock the helmet on your head. A properly fitting helmet will cause your scalp to move with the helmet. Does the helmet cause the scalp to move or does it slide when the helmet is rocked?
- If present, lower faceshield into position before entering hazard zone. Make sure faceshield does not interfere with your SCBA facepiece when fully engaged. If no SCBA facepiece is present, engage goggles. Does helmet interface with SCBA without interference? If goggles are worn, do they seal completely around eyes for complete eye protection?
- Ask a partner or responsible officer on the scene to make sure that your ear/neck protector overlaps the collar on your turnout coat to provide maximum coverage to the neck area. Always make sure no skin is exposed in interface areas between helmet, body, SCBA and collar. Do you have complete coverage in these areas?

## F. Appearance

3. It takes more than good looks to complete the appearance of a helmet.

- Is the helmet assembled tightly (no loose screws, nuts, bolts or other parts)?
- Are the goggles easily donned and doffed?
- Does the faceshield raise and lower correctly?
- Is the shell strong or is there bending and flexing of the brim and dome?
- Is the helmet assembled with ease of repair in mind for the fire fighter or other department personnel?
- Does the helmet look to be sitting down on the head correctly or does it ride too high or too low?

## G. Balance and Stability

4. Balance and stability are important when you are in action. Are you fighting the fire or your helmet?

- Does the helmet stay on your head without extra adjusting while performing your duties?
- Does the helmet move with your head or does the weight cause it to bobble or wobble on your head?
- Does the helmet fall off your head or slide when bending over?

## H. Head/Neck Fatigue

5. Head/neck fatigue or headaches can cause you to remove your helmet when you shouldn't. It also may cause lack of concentration on duties.

- Do you begin to get a headache within 20 minutes of wearing the helmet?
- Does the headband have gaps in some areas and pinching in other areas on the circumference of your head?
- Does your neck get stiff or hurt because the helmet is top heavy or wobbles?
- Does the weight of the helmet pull your head in the wrong direction causing strain to keep the helmet stable?

# Helmet Wear Test Evaluation

Participant data for  
evaluation/follow-up

Thank you for participating in the helmet wear test program. Your feedback is instrumental for the continuous improvement in the quality of our helmets.

**Model:** \_\_\_\_\_ **Helmet Manufacture Date:** \_\_\_\_\_ (Located on barcode under brim)

**Fire Department:** \_\_\_\_\_

Your name: \_\_\_\_\_ Rank: \_\_\_\_\_ Phone #: \_\_\_\_\_  
Station #: \_\_\_\_\_ Address: \_\_\_\_\_ Shift: \_\_\_\_\_

Dates Tested: From: \_\_\_\_\_ To: \_\_\_\_\_  
Approximate # of Runs: \_\_\_\_\_ # of Working Fire Calls: \_\_\_\_\_

1. What type of firefighting/rescue do you handle? (check all that apply)

Structural     Proximity     HAZMAT     Other

2. Please check all helmet brands participating in the wear test:

<input type="checkbox"/> Bullard modern style composite	<input type="checkbox"/> Paul Conway American Heritage (leather traditional)
<input type="checkbox"/> Bullard modern style thermoplastic	<input type="checkbox"/> Paul Conway American Classic (composite traditional)
<input type="checkbox"/> Bullard traditional style	<input type="checkbox"/> Paul Conway Legacy 5 (modern composite shell)
<input type="checkbox"/> Cairns leather	<input type="checkbox"/> Paul Conway Liberator (rescue)
<input type="checkbox"/> Cairns fiberglass traditional	<input type="checkbox"/> Paul Conway aluminized traditional
<input type="checkbox"/> Cairns thermoplastic traditional	<input type="checkbox"/> Paul Conway aluminized modern
<input type="checkbox"/> Cairns fiberglass modern	<input type="checkbox"/> Paul Conway aluminized J-Fire configuration
<input type="checkbox"/> Cairns thermoplastic modern	(circle one - traditional, modern)
<input type="checkbox"/> Morning Pride Ben Franklin traditional	<input type="checkbox"/> Other (list): _____
<input type="checkbox"/> Morning Pride Liter Force modern	_____

3. In what circumstances have you tested the helmet? (check all that apply)

Actual daily operations (structural, proximity, HAZMAT, etc.)  
 Other (list): \_\_\_\_\_  
 Training

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## PLEASE RATE THE HELMETS ON THE FOLLOWING FEATURES:

*Check one*

4. Please rate the features of this helmet from 1 to 4 (1 being poor, 4 being excellent) for each category as compared to your current helmet:

	Poor			Excellent
A. Protection	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
B. Weight	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
C. Durability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
D. Comfort	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
E. Fit/Function	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
F. Appearance	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
G. Balance/Stability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
H. Head and Neck Fatigue or Headaches	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

5. Please rate the features of this helmet from 1 to 4 (1 being poor, 4 being excellent) for each category as compared to other wear test helmet(s):

	Poor			Excellent
A. Protection	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
B. Weight	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
C. Durability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
D. Comfort	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
E. Fit/Function	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
F. Appearance	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
G. Balance/Stability	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>
H. Head and Neck Fatigue or Headaches	1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>	4 <input type="checkbox"/>

## Helmet Wear Test Evaluation

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evaluation/follow-up

6. Overall, how satisfied are you with this helmet?

Very satisfied

Satisfied

Neither satisfied nor dissatisfied

Dissatisfied

Very dissatisfied

Comments: \_\_\_\_\_  
\_\_\_\_\_

7. Please explain any ideas, suggestions, etc. for improvement of any feature of this helmet.

All feedback welcome: \_\_\_\_\_  
\_\_\_\_\_

8. Any additional comments: \_\_\_\_\_  
\_\_\_\_\_