

WHAT IS CLAIMED IS:

1. A protective headgear system comprising:
 - a support configured to engage the head of a user;
 - a facial shield having an upper portion coupled to the support and a lower portion having a lower extremity;
 - a flexible sheet coupled to at least the lower portion of the facial shield, the flexible sheet configured to cover at least a portion of the upper torso of the user;
 - a base carried by the support and downwardly extending at least to a position at or adjacent the lower extremity of the facial shield;
 - a first microphone comprising a first sound energy sensor and configured to generate a first signal, the first microphone carried by the base such that the first sound energy sensor is located below the lower extremity of the facial shield and is preferentially oriented away from the user;
 - a second microphone comprising a second sound energy sensor and configured to generate a second signal, the second microphone carried by the base such that the second sound energy sensor is preferentially oriented toward the user;
 - a first audio generator configured to generate a first vibration capable of being sensed by at least one ear of the user, the first vibration at least partially generated from the first signal; and
 - a second audio generator comprising a loudspeaker configured to generate a second vibration at least partially generated from the second signal, the loudspeaker carried by the base such that the loudspeaker is located below the lower extremity of the facial shield and is oriented for preferential sound energy delivery generally away from the user.
2. The system of claim 1, wherein the second sound energy sensor is located above the lower extremity of the facial shield.
3. The system of either one of claims 1 or 2, wherein the first audio generator comprises at least one earphone.
4. The system of claim 3, wherein the at least one earphone is configured to be held substantially flush against an outer ear of the user.
5. The system of claim 3, wherein the at least one earphone is configured to be carried within an ear canal of the user.

6. The system of either one of claims 1 or 2, wherein the first audio generator comprises an internal loudspeaker carried by the base such that the internal loudspeaker is oriented for preferential sound energy delivery generally toward the user
7. The system of any one of claims 1-6, wherein the flexible sheet comprises a fabric.
8. The system of any one of claims 1-7, wherein the flexible sheet comprises a polymer.
9. The system of any one of claims 1-8, wherein the flexible sheet comprises an elastomer.
10. The system of any one of claims 1-9, wherein the first microphone, the second microphone, and the loudspeaker of the second audio generator together have a mass of less than about 100 grams.
11. The system of claim 6, wherein the first microphone, the second microphone, the loudspeaker of the second audio generator, and the internal loudspeaker together have a mass of less than about 100 grams.
12. The system of any one of claims 1-11, wherein base is configured to be located between the user and the flexible sheet.
13. The system of any one of claims 1-12, wherein base is configured to be located between the user and the facial shield.
14. The system of any one of claims 1-13, wherein the facial shield comprises a lens.
15. The system of any one of claims 1-14, wherein at least one of the first audio generator and the second audio generator is configured to receive signals wirelessly.
16. The system of claim 15, wherein at least one of the first audio generator and the second audio generator is configured to receive signals via Bluetooth.
17. The system of any one of claims 1-16, further comprising a recorder configured to record at least some of the second signal.
18. The system of claim 17, further comprising a processor configured to edit the at least some of the second signal and to create a digital record.
19. The system of any one of claims 1-18, wherein the support, the facial shield, and the flexible sheet are sealably coupled together to create an internal volume for at least the head and torso of the user.
20. The system of claim 19, further comprising a respirator configured to supply filtered air to the internal volume.

21. The system of any one of claims 1-20, wherein the base comprises a generally U-shaped chin bar having an outer surface configured to face away from the user and an inner surface configured to face toward the user.

22. The system of claim 21, wherein the first microphone and second audio generator are carried on the outer surface of the chin bar.

23. The system of either one of claims 21 or 22, wherein the second microphone is carried on the inner surface of the chin bar.

24. The system of any one of claims 1-23, wherein the first microphone and the second audio generator are located between the user and the flexible sheet.

25. The system of any one of claims 1-24, wherein the flexible sheet comprises a hood.

26. The system of any one of claims 1-24, wherein the flexible sheet comprises a gown.

27. The system of any one of the previous claims, further comprising a light carried by the support and configured to illuminate an external environment for visualization by the user.

28. The system of claim 27, wherein the light comprises one or more high intensity LEDs.

29. The system of claim 1, further comprising first, second, and third hooks carried on a perimeter of the support and horizontally spaced from each other, wherein the upper portion of the facial shield is configured to be removably coupled to the support, and wherein the upper portion of the facial shield further comprises a first hole, a second hole, and a third hole, each one of the first, second, and third holes horizontally spaced from the other two of the first, second, and third holes, wherein the first hole is configured to be engaged with the first hook, wherein the second hole is configured to be engaged with the second hook, wherein the third hole is configured to be engaged with the third hook, wherein the first hook is located between the second hook and the third hook along the perimeter of the support.

30. The system of claim 29, wherein the first hook comprises a hook portion having a maximum hook horizontal width, and wherein the first hole has a first hole horizontal width greater than the maximum hook horizontal width of the hook portion of the first hook.

31. The system of claim 30, wherein the facial shield has a first position in relation to the support such that the first hole can be placed in an unlocked manner around the

hook portion of the first hook and the second hole is not oriented for coupling to the second hook, and wherein the first hole is horizontally slidable in relation to the first hook such that the facial shield is locked to the first hook via the first hole and such that the facial shield has a second position in relation to the support, wherein the second hole is oriented for coupling to the second hook.

32. The system of claim 31, wherein when the facial shield is in the second position in relation to the support, the third hole can be placed in position for coupling to the third hook.

33. The system of claim 31, wherein the second hook comprises a base coupled to the support, an upper hook portion extending substantially vertically upward from the base, and a lower hook portion extending substantially vertically downward from the base, and wherein the second hole has a second hole vertical gap and a second hole horizontal width, and wherein the base of the second hook has a vertical thickness less than the second hole vertical gap base of the second hook further having a horizontal thickness less than the second hole horizontal.

34. The system of claim 33, wherein the lower hook portion of the second hook has a vertical extension length from a lower portion of the base of the second hook, wherein the sum of (a) the vertical extension length of the lower hook portion of the second hook and (b) the vertical thickness of the base of the second hook is greater than (c) the second hole vertical gap.

35. A facial shield for a protective headgear system, the protective headgear system comprising a support configured to engage the head of a user and first, second, and third hooks carried on a perimeter of the support and horizontally spaced from each other, wherein the first hook is located between the second hook and the third hook along the perimeter of the support, and wherein the first hook comprises a hook portion having a maximum vertical dimension and a base coupled to the support and having a vertical base thickness, the facial shield comprising: a polymeric sheet having an upper portion configured to be coupled to the support and a lower portion having a lower extremity, wherein the upper portion comprises a first hole, a second hole, and a third hole, each one of the first, second, and third holes horizontally spaced from the other two of the first, second, and third holes; and the first hole comprising a first section having a first section vertical gap and a second section horizontally adjacent the first section and having a second section vertical gap, wherein the first section vertical gap of the first hole is greater than or equal to the maximum vertical dimension of the first hook, and wherein the second section vertical gap of the first

hole is greater than the vertical base thickness of the base of the first hook and is less than the maximum vertical dimension of the first hook.

36. A protective headgear system comprising:

a support configured to engage the head of a user, the support having an anterior portion, a posterior portion, and an outer perimeter;

an extender configured to be coupled to the support, the extender having an interior side comprising a concavity and an exterior side opposite the interior side, the concavity configured to be placed against a surface of the anterior portion of the support;

at least one hook carried on the extender, the hook extending outwardly from the exterior side of the extender; and

a facial shield having an upper portion configured to be coupled to the at least one hook of the extender and a lower portion having a lower extremity, wherein the extender has a thickness at the at least one hook configured to increase an amount of space within an interior of the facial shield, adjacent the face of the user.

37. The system of claim 36, wherein the extended is removably attachable to the support.