Individual Soldier Equipment Descriptions

1. Advanced Combat Helmet (ACH)

a. Capability.

The Advanced Combat Helmet is an improved helmet offering enhancements in vision, hearing stability, compatibility, weight, and comfort. It maintains the same level of fragmentation protection as the Personnel Armor Systems Ground Troops (PASGT) helmet, but offers improvements in 9mm protection and low-speed impact protection (bump).

b. Description.

The ACH is modular in design and presently comes in three shell sizes (Medium, Large, and Extra-Large) and two pad thicknesses (Sizes 6 – thinner and 8 – thicker). The suspension system is an assembly of modular pads that offers improved stability on the wearer's head as well as physical comfort. The helmet will accommodate the 5th to 95th percentile male and female. The edge of the ACH shell is finished with a rubber trim. The chinstrap, a four point design is composed of three basic elements: a "Y" shaped right side element, a "V" shaped left side element, and a foam nape pad piece joining the two side elements. This allows for quick adjustment for head size and includes a neck cushion for improved comfort and stability.



A specific National Stock Number (NSN) has been assigned to each combination of shell and pad size (i.e. Medium shell, Size 6 pads has a unique NSN). Each ACH comes with a helmet shell, installed pad system, and installed chinstrap assembly. Other accessories are available for the ACH; accessories fielded by RFI are addressed separately in Part III, Section A, Paragraph 2 of this guide.

The helmet shell is made of Aramid fabric, the chinstrap is consists of cotton/polyester webbing and a foam nape pad, and the interior pads are made of polyurethane foam. A medium ACH weighs 3.0 lbs., the large weighs 3.25 lbs., and the extra large helmet weighs 3.70 lbs..

ACH accessories (provided by RFI) are addressed in Part III, Section A, Paragraph 2 of this guide. Expendable ACH components and replacement items are listed in the following table:

Nomenclature
Fastener Tape, Hook (Hook Disks) – Roll of 500
Tab, Chinstrap Mounting (includes Ladder Lock)
Mounting Screw, ACH
Nut, Helmet, ACH
Pad, Suspension System, ACH (Set of Size 6 Pads)
Pad, Suspension System, ACH (Set of Size 8 Pads)
Pad, Helmet, Advanced Combat (Circular Crown Pad, Size 6)
Pad, Helmet, Advanced Combat (Oblong/Oval Pad, Size 6)
Pad, Helmet, Advanced Combat (Oblong/Oval Pad, Size 8)
Pad, Helmet, Advanced Combat (Trapezoidal Pad, Size 6)
Pad, Helmet, Advanced Combat (Trapezoidal Pad, Size 8)
Post, Helmet (for attaching NVG Front Bracket Assembly)
Screw Set, Mounting – includes (4) Chinstrap Mounting Tabs, (4)
screws, (4) nuts
Strap, Chin, Retention, Size M/L
Strap, Chin, Retention, Size XL

d. Substitute Items.

There are no authorized substitute items for the ACH.

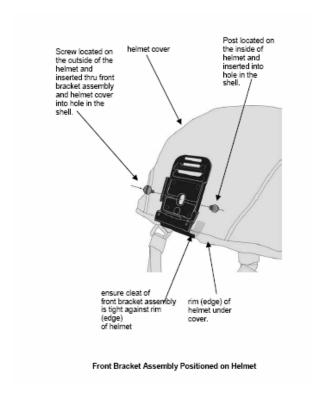
2. Advanced Combat Helmet (ACH) Accessories

a. Capability.

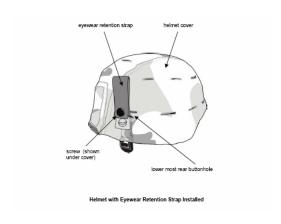
Advanced Combat Helmet (ACH) Accessories are provided to improve situational awareness through the integrated use of Night Vision Goggles and to enhance Soldier survivability through the use of integrated protective eyewear and camouflage while wearing the ACH.

b. Descriptions.

Night-vision Optical Device (NOD) Front Mounting Bracket:
 Attaches directly to the ACH to mount personal night-vision optical devices (AN/PVS-7 and AN/PVS-14 Series).



- Eyewear Retention Strap: Attaches directly to the ACH to secure the protective eyewear headband.
- o **ACH Camouflage Cover**: Fits over the ACH shell to provide integrated camouflage. The cover is available in three sizes: Small/Medium, Medium/Large, and Large/Extra-Large. All covers are reversible; one side provides a Woodland camouflage pattern, the other a desert pattern.



There are no accessories/components required for these items.

d. Substitute Items.

There are no authorized substitutes for these items.

3. Army Combat Boots, Tan (Hot Weather)

a. Capability.

Army Combat Boots, Tan (Hot Weather) have been redesigned to provide enhanced comfort, protection, usability and durability in the rugged environments of current and potential hot weather areas of operation. Key design changes include an improved soling system and a redesigned upper for improved fit, enhanced breath-ability and faster drying. The new soling system was designed for injury reduction, shock attenuation and traction in multiple environments. This soling system has been proven to withstand the durability requirements of current and potential areas.

b. Description.

Army Combat Boots, Tan (Hot Weather) are made of leather and breathable Cordura. These boots are available in standard sizes, 2 – 16.5 (four widths: Narrow, Regular, Wide, and Extra-Wide). Each boot weighs 2 lbs. (Size 10 Regular). The boots are made with moisture-resistant leather in the foot portion of the boot, with a textured nylon duck upper. The



insole is a leather foam combination that provides insulation from the ground.

c. Accessories and Components.

There are no accessories/components required for this item.

d. Substitute Items.

The following items may be fielded as substitutes if necessary to supplement Army Combat Boots, Tan (Hot Weather) supplies:

- o Belleville DES390 Boots
- o Danner 26000 Arcadia Boots

4. Army Combat Boots, Tan (Temperate Weather)

a. Capability.

Army Combat Boots, Tan (Temperate Weather) have been improved significantly to increase breath-ability and decrease heat retention in temperate weather environments. Improved safety features include limited flame resistance, conductive heat and liquid fuel penetration protection.

b. Description.

Army Combat Boots, Tan (Temperate Weather) are made with moisture-resistant leather in the foot portion of the boot, with a textured nylon duck upper. The boots have a Waterproof attached bootie with durable wicking lining, toe-up eyelet lacing system, non-marking, oil resistant, durable Vibram tan rubber outsole, and shock absorbing polyether polyurethane midsole. The boot is NFPA compliant for flame resistance. The insole is a leather foam combination that provides insulation from the ground.



c. Accessories and Components.

There are no accessories/components required for this item.

d. Substitute Items.

There are no authorized substitutes for this item.

5. Ballistic Spectacles

a. Capability.

Ballistic Spectacles provide ballistic and UVA/UVB eye protection for Soldiers. These spectacles (models described below) do not have an approved laser protection lens and, therefore are not authorized for laser eye protection. The spectacles must not be used for mission or training scenarios that require laser eye protection.

b. Description.

There are three alternatives for Ballistic Spectacle fielding: Oakley SI M Frame (Military), Uvex XC, or Wiley-X SG-1. Non-Prescription Eyeglass Wearer's may be fielded any of the three alternatives, but Soldiers that wear prescription lenses must be fielded Uvex XC Ballistic Spectacles because the are the only alternative supported by prescription inserts.



Wiley-X SG-1 Ballistic Spectacles are commercially available protective eyewear for non-prescription lens wearers. Although Wiley-X SG-1 lenses can be commercially ground for prescription wearers, this process reduces ballistic protection to an unacceptable level; prescription lens wearers should use UVEX XC Ballistic Goggles with prescription inserts. The Wiley-X SG-1 is a dual lens eyewear that uses a foam seal around each eye socket to prevent infiltration of wind and dust. The lenses provide ballistic fragment protection and have anti-fog and scratch resistant coatings. The temples disengage and can be replaced with a snap loaded adjustable elastic headband. The frame provides a 90-degree wrap-back. One size fits all.



Oakley SI M Frame (Military) Ballistic Spectacles are commercially available protective eyewear for non-prescription lens wearers. Oakley SI M Frame lenses must not be ground for prescription wearers, this process reduces ballistic protection to an unacceptable level, prescription lens wearers should use UVEX XC Ballistic Goggles with prescription inserts. The Oakley SI M Frame (Military) design is compatible with the Advanced Combat Helmet and offers expanded peripheral vision and enhanced protection is provided via lateral contouring. The lens geometry minimizes refraction and allows extended upper/lower/lateral viewing fields. The frame with lens installed weights 1.05 ounce. One size fits all.



Uvex XC Ballistic Spectacles are manufactured of a lightweight rigid thermoplastic frame combined with a soft elsatomer material on the temple that proves comfort at contact points with the face. The frame features ratchet lens adjustment to complete the fitting system and provides for extended wear comfort. Using an interchangeable dual 9-base wrap-around polycarbonate lens, the Uvex XC protects the entire eye socket area with exceptional peripheral coverage and unobstructed vision. These spectacles have a small ventilation space between the frame and lens that vents the eye socket area to help reduce moisture. All lenses have been treated with anti-fog coating to further reduce the level of moisture and control fogging. The lens has a nominal thickness that provides ballistic-fragmentation protection.

Wiley-X SG-1 Ballistic Spectacles:

- O Components: Each set contains a black plastic/neoprene rubber frame, 2.1mm polycarbonate lenses (clear and sunglass), black elastic headband, a set of black plastic/neoprene rubber temple arms, and a black microfiber storage case.
- Replacement Parts: The following table lists replacement parts for Wiley-X SG-1 Ballistic Spectacles.

Item	NSN	Mfg Part Number
Clear Replacement Lenses	4240-01-504-0994	SG-1C
Green Smoke Replacement	4240-01-504-5312	SG-1G
Lenses		
Replacement Frame	4240-01-504-6524	SG-1F
(includes temples and strap)		
Elastic Strap Replacement	4240-01-504-5754	SG-1E
Replacement Temples	4240-01-504-6474	SG-1T

Oakley SI M (Military) Ballistic Spectacles

- O Components: Each set contains a black frame, Grey and clear strike Plutonite® ballistic lenses, and a black microclear storage bag and storage case.
- Replacement Parts: The following table lists replacement parts for Oakley SI M (Military) Ballistic Spectacles.

Item	NSN	Mfg Part Number
Clear Replacement Lenses	4240-01-525-7555	11-112
Grey Replacement Lenses	4240-01-525-7554	11-113
Replacement Storage Case	4240-01-525-7561	11-114
Micro Bag (package of 5)	4240-01-525-3109	11-115

• Uvex XC Ballistic Spectacles:

- Components: Each set contains a black thermoplastic frame, polycarbonate ballistic lenses with anti-fog coating (clear and sunglasses), black thermoplastic/elastomer padded temple arms, and a black cordura nylon carrying case.
- o Replacement Parts: The following table lists replacement parts for Uvex XC Ballistic Spectacles.

Item	NSN
Clear Replacement Lenses with Anti-fog Coating	4240-01-516-3469
(Package of 10)	
Grey Replacement Lenses with Anti-fog Coating	4210-01-516-3473
(Package of 10)	
Replacement Clear Spectacle Assembly	4210-01-516-3452
Black Carrying Case	4210-01-516-3444

o Accessories: The Uvex XC prescription lens carrier can be procured separately.

Item	NSN	
Prescription Lens Carrier	4210-01-516-5342	

Note: See separate document, "Prescription Inserts for Ballistic Spectacles" for instructions for obtaining optical inserts for UVEX Ballistic Spectacles.

d. Substitute Items.

There are no substitutes authorized for this item.

6. Combat Belt

a. Capability.

The Combat Belt provides Soldiers with lightweight belt with improved comfort, convenience, and function.

b. Description.

The Combat Belt is a one-piece, adjustable black nylon webbing with a black buckle. The belt is 44 inches long. The free end of the belt is rounded with an arc of approximately 2-1/2". Both raw ends of the belt are heat sealed to prevent fraying. The width of the webbing is 1-23/32 inches.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

The green version of the Combat Belt may be fielded if necessary to supplement black Combat Belt supplies.

7. Commercial-Off-The-Shelf (COTS) Socks

a. Capability.

COTS Socks provide Soldiers with comfortable and durable foot protection in a variety of battle-space environments.

b. Description.

The commercial off-the-shelf (COTS) Sock is an over-the-calf style with a double welt top having a double covered elastic yarn that is continuous in every course from the welt to the ankle area. The fully reciprocal heel, toe and foot area is padded with a half cushion terry for blister protection. The entire ankle/heel, toe and foot is knit 360 degrees circumferentially with a main body yarn (terry yarn) and a silver coated nylon yarn knit simultaneously in the same position. The nylon yarn is permanently coated with 99.9% pure silver, and is non-allergenic, anti-microbial and provides protection against bacteria and fungi.



c. Accessories and Components.

There are no accessories or components for this item

d. Substitute Items.

8. Elbow Pads

a. Capability.

Elbow Pads provide Soldiers with comfortable, durable and flexible protection for elbows.

b. Description.

Elbow Pads are ambidextrous and constructed of a molded, high density polyethylene knee or elbow shell fastened to a Cordura fabric outer cover that is sewn to a polyester inner lining. Within these coverings are sewn a three-segment impact-cushioning polyethylene foam. Elbow pads are provided with a neoprene elastic, full-width sleeve with integral elastic and hook and pile fasteners.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

This item will be fielded either in a desert or universal camouflage pattern.

9. Fleece Bib

a. Capability.

The Fleece Bib (overalls) serves as the primary insulating layer for the lower body in cold weather environments.

b. Description.

The Fleece Bib is an overall configuration with front fly and side zippers. It is made of 200-weight Polartec®. The Fleece Bib provides warmth with reduced weight, is very breathable, and dries quickly.

c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

10. Fleece Cap

a. Capability.

The Fleece Cap will provide the Soldier a lightweight cold weather cap that can be worn under the helmet. The cap is breathable and is fast-drying to be worn for cold weather operations.

b. Description.

The Fleece Cap is made of a lightweight, comfortable and warm synthetic micro-fleece material. The black knitted, bell-shaped pull-on style watch cap can be worn with physical training uniforms and can be worn under the helmet.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

The green version of the Fleece Cap may be fielded if necessary to supplement black Fleece Cap supplies.

11. Fleece Shirt

a. Capability.

The Fleece Shirt serves as the primary insulating layer for the upper body in cold weather environments.

b. Description.

The Fleece Shirt is 100% Polyester, 300 Weight and black-colored. The shirt has reinforced shoulders, upper back, upper chest and elbow patches, a convertible turtleneck collar, front zipper, elastic shock-cord waist, Velcro fastened wrist straps, and two hand-warmer pockets with zippers. It is made of 200-weight Polartec®. The Fleece Bib provides warmth with reduced weight, is very breathable, and dries quickly.



There are no accessories or components for this item

d. Substitute Items.

There are no authorized substitutes for this item

12. Glove System

a. Capability.

The Glove System is fielded to provide Soldiers with fire-retardant hand protection while preserving tactile sensitivity and flexibility of motion in a variety of environmental conditions.

b. Description.

The Glove System includes one pair of Nomex® Summer-weight gloves and one pair of Nomex® Intermediate Cold Weather Gloves.



 Gloves, Nomex, Flyers, Summer: These gloves are made of Nomex® cloth with perspiration resistant leather palms, offering enhanced touch as well as flexibility; they are lightweight, long and unlined.



O Gloves, Nomex, Flyers, Intermediate Cold Weather include a Nomex® and leather shell in a Flexor pattern design; Nomex® knit cuff; inner lining with 100 gram Thinsulate® insulation on the back of the hand and 40 gram Thinsulate® insulation on the palm of the hand. In addition, this glove has a unique fingertip design to provide essential tactility.

c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

There are no approved substitutes for this item

13. Goggles

a. Capability.

Land Operations Goggles and Low Profile Goggles provide ballistic and UVA/UVB eye protection for Soldiers. These goggles do not, however, provide laser eye protection and <u>must not be used for mission or training scenarios that require laser eye</u> protection.

b. Description.

There are two alternatives for Goggles fielding: Land Operations Goggles and Low Profile NVG Goggles. Soldiers that require prescription eyeglasses will be fielded with the Land Operations Goggles, and Soldiers that wear non-prescription lenses will be fielded with Low Profile NVG Goggles.



The Land Operations Goggles are commercially available protective eyewear for prescription lens wearers. The ESS Land Operations Goggles do not have designated sizes, as one size fits all. The goggles consist of an injection molded rubber frame with polyurethane foam backing with a foam skin that contacts the face. Foam covered vent holes allow some ventilation while keeping out dust. The lens has a nominal thickness of 2.44 mm and meets US Military Mil V-43511C ballistic impact requirements.



The Low Profile Goggles are commercially available protective eyewear for non-prescription lens wearers. The goggles provide ballistic and UVA/UAB eye protection. The ESS Land Goggles do not have an approved laser protection lens and therefore, are not authorized for laser protection. The goggles must not be used for missions or training scenarios that require laser eye protection. Foam covered vent holes allow some ventilation while keeping out dust. The lens has a nominal thickness of 2.8 mm and meets US Military Mil V-43511C ballistic impact requirements.

Land Operations Goggles

- O Components: Each set contains a olive green neoprene rubber frame, black elastic web strap, 2.4mm thick polycarbonate lens (clear and sunglass) storage case, and anti-reflective sleeve.
- Replacement Parts: The following table lists replacement parts for Land Operations Goggles.

Item	NSN
Complete Set (with anti-reflective sleeve)	4240-01-504-0052
Replacement Ballistic Smoke Grey Lens (pack of 50)	4210-01-492-5725
Replacement Ballistic Clear Lens (pack of 50)	4210-01-492-5722
ESS Land Ops Google (no Sleeve)	4240-01-479-8657

Low profile NVG Goggles

- O Components: Each set contains a green, black or tan neoprene rubber frame, black elastic web strap, 2.8mm thick polycarbonate lens (clear and sunglass) storage case, and antireflective sleeve.
- Replacement Parts: The following table lists replacement parts for Low Profile Goggles.

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Item	NSN		
Complete Set	4240-01-504-6222 (Black)		
	4240-01-504-5706 (Green)		
	4240-01-504-5727 (Tan)		
Replacement Ballistic Smoke Grey Lens (pack of 50)	4240-01-504-6143		
Replacement Ballistic Clear Lens (pack of 50)	4240-01-504-5641		

d. Substitute Items.

14. Improved First Aid Kit (IFAK)

a. Capability.

The Improved First Aid Kit (IFAK), in conjunction with proper training, will greatly increase force effectiveness by increasing Soldier survivability. The IFAK will help increase the potential of survival for combat casualties. Specifically, the kit provides enhanced capabilities to immediately treat exsanguinations (bleeding) from an extremity wound and airway occlusion.

NOTE: The IFAK is a new item; it will likely be available for fielding in 3rd Quarter, FY05.

b. Description.

The IFAK is a self-contained assembly that includes one Combat Application Tourniquet (CAT), one emergency pressure dressing, one gauze bandage roll (4.5 inches wide and 4.0 yards long), one roll of surgical adhesive tape (2 inches wide and 30 feet long), one nasopharyngeal airway, and four patient examination gloves. The contents of the kit are contained in a Modular Lightweight Load-carrying Equipment (MOLLE) utility pouch.



c. Accessories and Components.

		Unit	Factor	
		of	of	Quantity
NSN	Nomenclature	Issue	Package	per IFAK
6515-01-521-7976	Tourniquet, Combat Application	EA	1	1 EA
6510-01-492-2275	Bandage Kit, Elastic	EA	1	1 EA
6510-00-058-3047	Bandage GA4-1/2" 100's	PG	.01	1 EA
6510-00-926-8883	Adhesive Tape Surg 2" 6's	PG	.18	1 RO
6515-01-180-0467	Airway, Nasopharyngeal	EA	1	1 EA
6515-01-364-8553	Glove, Patient Exam 100's	PG	.04	4 EA
6545-01-531-3647	Pouch, IFAK	EA	1	1 EA
6545-01-531-3147	Insert	EA	1	1 EA

d. Substitute Items.

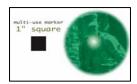
15. Infrared (IR) Markers

a. Capability.

The Infrared (IR) Marks are fielded to increase situational awareness and reduce the incidence of fratricide.

b. Description.

The Infrared (IR) Markers consist of two (2) 1 inch x 1 inch square Velcro-attaching, multi-use markers and three (3) 1 inch x 4 inch shim-type helmet markers that attach using the slits in the helmet cover. The IR markers are designed from infrared material that to the naked eye, it appears to be similar to black duct tape in both texture and finish without a visible reflective glow. When the IR Marker is illuminated with an infrared source, using an infrared diode, a bright reflection can be seen through night vision goggles at extremely long distances.





c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

There are no authorized substitutes for this item.

16. Knee Pads

a. Capability.

Knee Pads provide Soldiers with comfortable, durable and flexible protection for knees.

b. Description.

Knee Pads are ambidextrous and constructed of a molded, high density polyethylene knee or elbow shell fastened to a Cordura woodland camouflage fabric outer cover that is sewn to a polyester inner lining. Within these coverings are sewn a three-segment impact-cushioning polyethylene foam. The knee pads are provided with neoprene elastic flaps for above and below the knee with hook and pile closures and also have an integral elastic strap for above the knee and a nylon webbing below the knee, both with hook and pile fasteners.



There are no accessories or components for this item.

d. Substitute Items.

This item will be fielded either in a desert or universal camouflage pattern.

17. Modular Sleeping Bag System

a. Capability.

The Modular Sleeping Bag System provides extreme cold weather protection from -5 F to 35 F.

b. Description.

The Modular Sleeping Bag System is a bag-withina-bag concept. The system consists of a camouflaged, water resistant, breathable cover, lightweight and intermediate cold weather sleeping bag, and a compression sack to store and carry the system. Sleeping bags are made of rip-stop nylon and filament polyester insulation, camouflage covers are breathable, coated nylon and the compression sack is water resistant durable nylon.



c. Accessories and Components.

Each Modular Sleeping Bag System includes the following components.

Component	NSN	Graphic
Sleeping Bag, Patrol, MSS Green	8465-01-398-0685	1
Sleeping Bag, Intermediate, CW, MS Black	8465-01-398-0687	2
Bivy Cover, Woodland Camo, MSS	8465-01-416-8517	3
Compression Stuff Sack, Black	8465-01-398-5428	4







d. Substitute Items.

There are no RFI substitutes for this item.

18. Moisture Wicking Brassiere

a. Capability.

The Moisture Wicking Brassiere provides comfortable support and moisture wicking capability without chaffing and with unlimited range of motion. The Moisture Wicking Brassiere is compatible with the Moisture wicking T-Shirt

b. Description.

The Moisture Wicking Brassiere has a contoured mesh back with a soft elastic trim on the neckline armholes, straps and supportive band around the ribcage. The front and sides are a blend of 6-ounce 91% polyester and 9% spandex. The moisture wicking liner is a blend of 3.5-ounce 83% polyester and 17% spandex. The back is a blend of 84% polyester mesh and 16% spandex mesh. The average weight is approximately 3 ounces.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

There are no substitutes for this item.

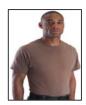
19. Moisture Wicking T-Shirt

a. Capability.

The Moisture Wicking T-Shirt provides Soldiers with environmental and comfort protection (moisture wicking) upper body undergarment.

b. Description.

The Moisture Wicking T-Shirt is a standard commercial 100% polyester design with a crew neck and quarter length sleeves that replaces the cotton T-Shirt.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.

There are no substitutes for this item.

20. Silk-weight Underwear

a. Capability.

Silk Weight Underwear provides Soldiers with lightweight, quick-drying long underwear with moisture wicking capability in cold weather environments.

b. Description.

Silk Weight Underwear is 100% polyester with flat seams. The set includes a top for the upper body and a bottom for the lower body. The average weight of each is approximately four (4) ounces.



c. Accessories and Components.

There are no accessories or components for this item.

d. Substitute Items.