



PROGRAM EXECUTIVE OFFICE SOLDIER

THE BEST
FOR THE BEST

Military Combat Eye Protection Program (MCEPP)

Advanced Planning Briefing for Industry (APBI)

PM-Soldier Survivability
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MCEP Program

The Military Combat Eye Protection (MCEP) program is an umbrella program geared toward:

- **Protecting the eye from external threats/hazards**
 - Ballistic fragmentation
 - Electromagnetic radiation
 - Wind
 - Sand/dust
 - Other performance parameters (i.e. equipment compatibility)

- **Providing vision correction**
 - Addresses prescription inserts
 - Key role played by MEDCOM



MCEP Program Approach

MCEP stresses the following to ensure successful acquisitions and user satisfaction:

CHOICE: MCEP offers eye protection to Soldiers in a variety of sizes and styles. By allowing Soldiers a choice in eye protection to meet mission needs, the MCEP improves Soldier acceptance of approved protective eyewear and reduces the likelihood of eye injuries.

TESTING: Products qualified by rigorous testing. Ballistic fragmentation, optical, and user testing in a field environment are among the tests that eyewear must successfully complete in order to be approved. Those items that pass the testing and receive User approval are included on an Authorized Protective Eyewear List (APEL).

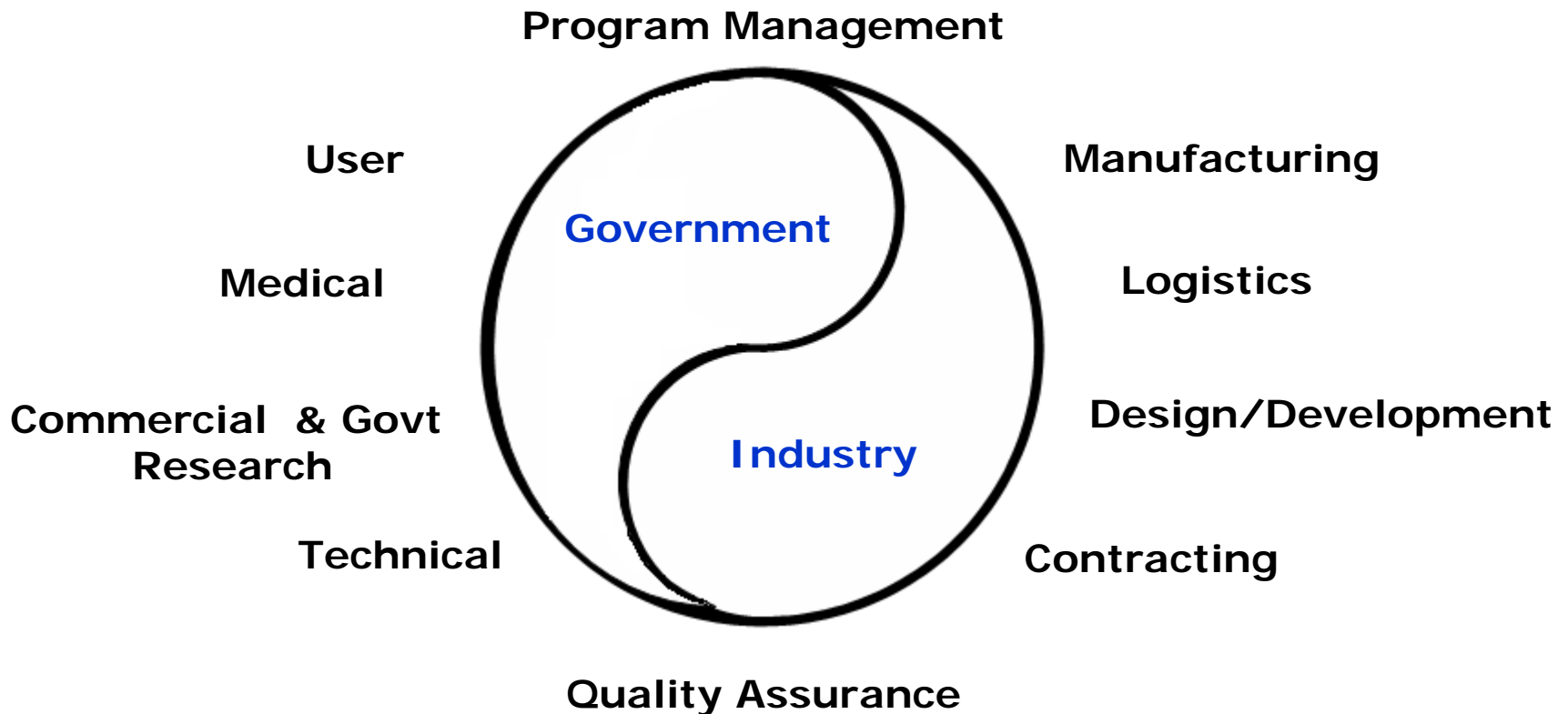
FLEXIBILITY: Products are added/subtracted from the APEL list as User needs change

PARTNERING: Partner with Industry, the User community, the Medical Community, etc to arrive at a well rounded APEL list to best suit current and emerging User needs.



MCEP Players

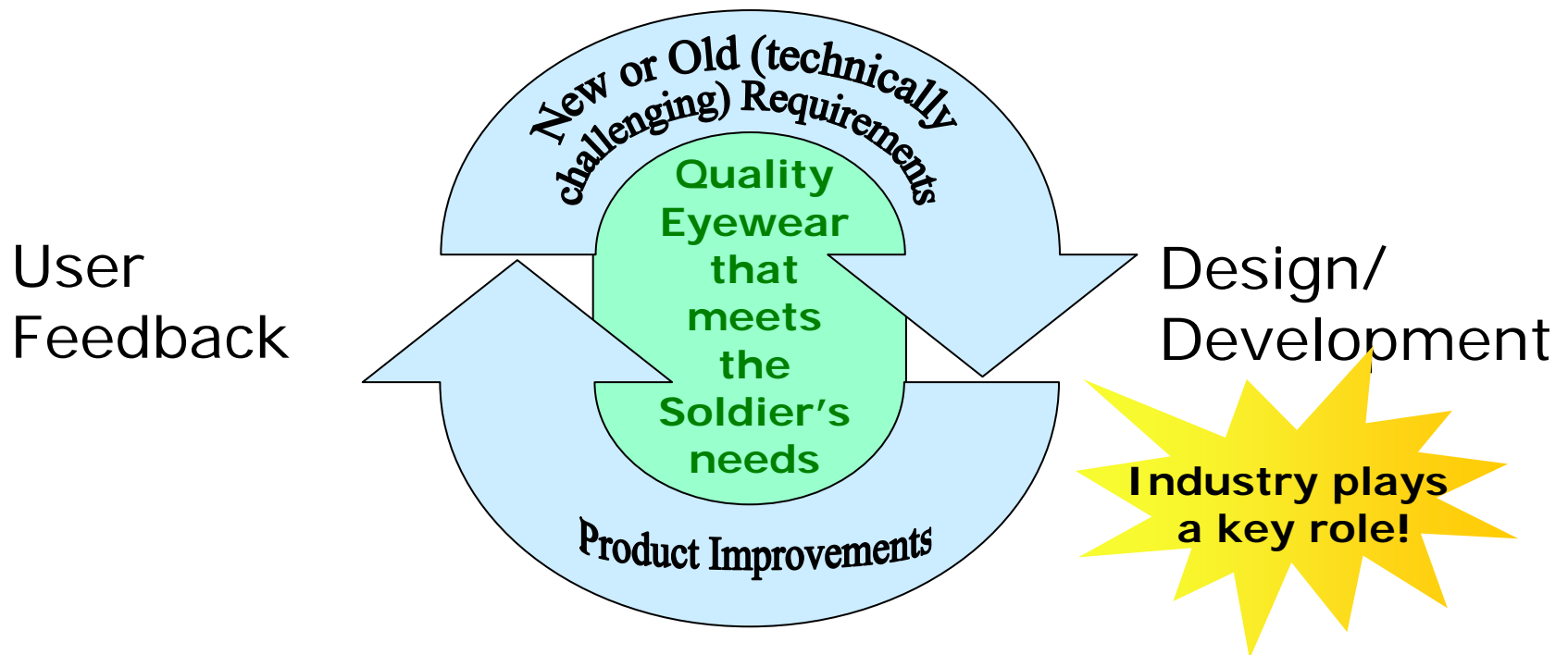
MCEP success is highly dependent on the various communities working together as a team and involving a variety of expertise





MCEP Product Improvements

Feedback and continuous product improvement are key to continued MCEP success



The APEL process provides the **flexibility** to do this *real time*



Current MCEP Eyewear on APEL

ESS ICE-2 & ICE NARO
(2 sizes; Rx capable)



Oakley Military
M 2.0 Frame



Uvex XC and Genesis
(both Rx capable)



Wiley-X SG-1 and PT-1



Revision Sawfly
(2 sizes; Rx capable)



Revision Desert Locust
(Rx capable)



ESS Land Ops, Vehicle Ops & Low Profile
(1st two worn over glasses, 3rd Rx capable)



Arena Flakjak





Promoting MCEPP

Authorized Protective Eyewear List

Authorized Protective Eyewear List Label Approved

ESS Low Profile NVG (Rx capability) (4240-01-540-5585)

ESS Land Ops (may be worn over glasses) (4240-01-504-0052)

ESS Vehicle Ops (may be worn over glasses) (4240-01-525-5101)

Revision Desert Locust (Rx capability) (4240-01-547-6218)

Revision Sawfly (Rx capability, Dual Size) (4240-01-527-4051 reg) (4240-01-527-4018 lrg)

Oakley SI Ballistic M Frame 2.0 (4240-01-525-3095)

Arena Flakjak (4240-01-548-7366)

ESS ICE (Rx capability, Dual Size) (4240-01-525-5085 ICE 2) (4240-01-537-6143 ICE NARO)

UVEX Genesis (Rx capability) (4240-01-552-4131)

Wiley X PT-1 (4240-01-510-7853)

Wiley X SG1 (4240-01-504-0994)

UVEX XC (Rx capability) (4240-01-516-5361)

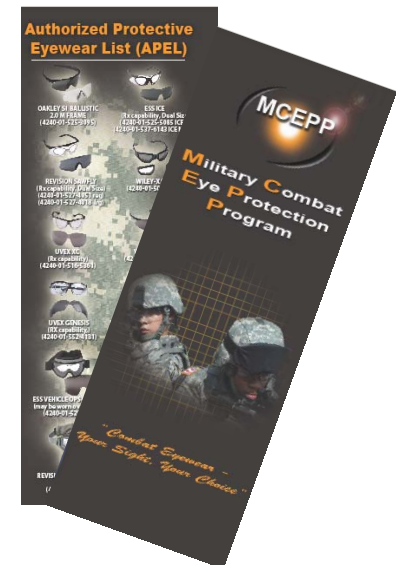
Combat Eyewear - Your Sight, Your Choice

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Phone: 703-764-2800
http://poeosoldier.army.mil/poeoe/eyewear.asp
<https://poeosoldier.army.mil/poeoe/eyewear.asp>

Posters on display at AAFES and Military Clothing Stores

Info available on PEO and MEDCOM websites

Pamphlets available as handouts





APEL Candidate Submissions

New Proposals:

- APEL submissions shall include part numbers, cost, item description including materials used in the item, material safety data sheets and lot size used to produce samples submitted for evaluation and testing.
- Manufacturing location of all components to ensure compliance with Buy American Act, Berry Amendment and Trade Agreement Act
- New submission should represent a significant improvement over current capabilities



Changes to APEL Policy

- Updated APEL Policy will be provided by next retention period July 2009. Manufacturers will be required to meet the new APEL policy by January 2010.
- Lenses shall include date stamp, cavity/mold marking, source of manufacturing and if cut source of cut location.
 - Date stamp shall be a two digit month followed by a four digit year (05/2009)
 - Source of manufacturing and cutting shall be such a way that the source is easily identifiable.
 - Date of manufacturing is defined as the date the lens was molded or cut.
- Frames shall include date stamp and cavity/mold marking.
 - Date stamp shall be a date clock.
- All APEL items will include an anti-fog solution.
 - Solution used is up to the manufacturers
 - Anti-fog shall be reusable and not degrade the optics or physical characteristics of the item.



Multiple Lens Sources

- Only two lens sources per APEL item are allowed.
 - Reduces management burden on Government.
 - Reduces probability of issues arising during production.
- Lenses shall be marked with source of manufacturing and if cut the cut location.
 - Manufacturers shall be able to track the lens back to the lens blank and the material used to make the blank.
- Each lens sources will be treated as independent APEL item.
 - Data submitted for retention and recertification will need to be provided for each lens source.
 - Items provided to PM-SSV in support of large purchases shall be segregated from each other if multiple sources are used.
 - Manufactures will be required to use the same two approved sources of lenses for a minimum period of one year.



MCEP Specification

- Going to start to enforce the MCEP specification requirements by January 2010.
 - May allow minor deviations for chemical. Specifically DEET and Chlorine.
- Will start to schedule sessions with manufactures who have provided comments to discuss acceptance or rejection of suggestions.
- Implement comments and changes by May 2009.



New ANSI Z87.1

- New ANSI Z87.1 standard trying to be pushed out by June 2009.
- There are significant changes to the standard.
 - Addition of Rx inserts during impact testing.
 - Testing of optics on the EN head form.
 - Different flame test.
 - Minimum side coverage requirement.
- Determine if your products will be affected by the new standard and provide feedback to PM-SSV. Feedback should include specific issues. Identify the issue and the ANSI section and test method.



Test Reports

- All test reports shall include the date stamp/date clock information, cavity/mold markings, source of manufacturing for each item, test methods, observations for chemical, ballistics, distortion, temperature, humidity, ANSI High Velocity and ANSI High Mass.
 - If there are no observations then the report shall say no observations were noted.
 - If acronyms are used the first time an acronym is used it shall be spelled out.
 - If Rx testing is performed the material of the prescription needs to be specified in the report.



PEO Soldier Logo Guidance

- PEO Soldier Logo is still required.
- Location should be on the left side of the spectacle or goggle.
 - Does not need to be on both left side and right side
- Logo can be embossed, debossed or pad printed.
 - Submit samples to PM-SSV for feedback.
 - Logo must last for the life of the item ~6 months.
 - Logo shall not be on the top/bottom of the item.
 - Logo shall not be easily removed.
- Any testing required to validate a change to a mold to include the PEO Soldier Logo will be captured under the 6 month retention testing cycle.



PEO Soldier Logo Guidance Cont' Packaging

- PEO Soldier Logo label shall be on one side of a boxed product and shall be on the same side as one of the APEL certification labels.
- PEO Soldier Logo label shall be on the same side as the APEL label of a blister packed product.
- Any APEL product that is sold in AAFES or any location where a Soldier has access to it shall have the PEO Soldier Logo. Replacement lenses, etc.
- The PEO Soldier Logo label can not be modified in anyway.



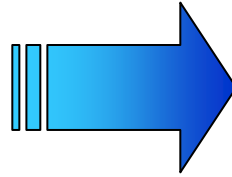
This product meets the manufacturing and performance testing requirements as authorized PEO SOLDIER, Authorization Number xxxx, NSN Number xxxxxxxxxxxxxxxx(when available). This authorization does not constitute an endorsement by the U.S. Army



MCEP Areas on which to focus

From AKO Survey:

- Scratch resistance
- Fog resistance



Need: New coatings, materials and/or novel configurations to mitigate the issues



Original version Blowing Sand Apparatus

Supportive Test methodology/equipment for assessing these characteristics is underway

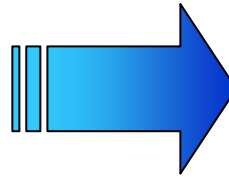


MCEP Areas on which to focus

From Survey and/or anecdotal Feedback:

Prescription (Rx) lens carriers

- Users having difficulty adjusting to Rx
- High faceform angles in Rx carrier a contributing factor



Need:

New designs and/or design modifications, possibly in combination with Rx correction factor.

Near term: Already looking at new designs, Rx correction factors, beveled lenses.

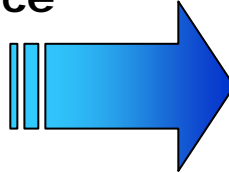
Mid-Far term: Potential to look for a universal Rx carrier.



MCEP Areas on which to focus

Lens transmittance

- Transition from low light to bright light and vice versa



Need:

Single lens that transitions from low light to bright light and vice versa.

Near term: Looked at intermediate sunglass lens.

Mid-Far term: Lenses that adjust to varying light conditions

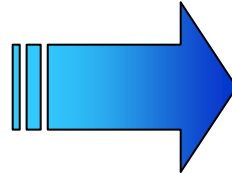


MCEP Areas on which to focus

Phasing Out :

SPECS/SWDG/BLPS

- Including laser items



Phasing in/Need:

Application of laser technology to APEL items

Near term: Completed all testing on current APEL products. Testing included ANSI, ballistics and user evaluation. Working IPT concurrence and NSNs.

Mid-Far term: Application of advanced laser protection (contract with Teledyne ongoing); ultimately tunable protection is desired.

Interest in current wavelengths with improved transmittance.

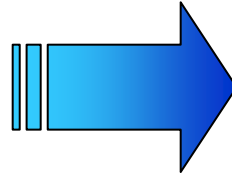


MCEP Areas on which to focus

Sensible/desired efforts:

Ballistics

- Any improved ballistic performance without adversely affecting weight, optics and other performance characteristics is always of interest



We welcome:

Any new materials/ additives/material combinations, etc that result in improved ballistic performance at the lens thicknesses we are dealing with for protective eyewear





MCEP Challenges

CHALLENGE:

- Product improvements without adversely affecting ballistics, optics, chemical resistance, weight, etc.



Balance Performance

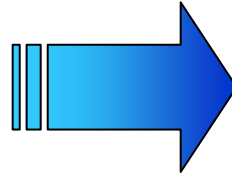




MCEP Summary

■ Summary of focus areas

- Improved scratch resistance
- Improved fog resistance
- Ease ability of User to adjust to prescription lenses
- Easier transition to/from low and bright light illumination settings
- Desired: Improved ballistics at spectacle/
- goggle level thicknesses



■ What industry can do

- End Items:
 - Continue to pursue and propose product improvements and new items to PM-Soldier
 - Leverage commercial technology
- R&D
 - In-house research
 - Participate in CRADA's, SBIR's, etc for future end item applications
- Watch Fed Biz Ops for business opportunities

Continue to promote and increase user awareness of APEL approved items



MCEP Summary

MCEP Program Summary

The APEL process is working – soldiers are wearing eye protection in combat and training, injuries have been prevented

Industry plays a key role in the evolution of the APEL products and the success of the program

*Thank You for your
Continued Support to
Our Soldiers*





Military Combat Eye Protection



*“Combat Eyewear
– Your Sight,
Your Choice”*