

5. HUMAN FACTORS INTERFACE ISSUES WITH NIGHT VISION GOGGLES

This last section provides several articles that treat human factors issues associated with NVG characteristics, such as field of view and interface issues with other aircrew equipment. In addition, this section presents articles that involve ancillary NVG equipment, such as the night vision goggle head-up display (NVG HUD). This system was developed by AFRL/HEC in the early 1980s, as a means of injecting symbology information into the pilot's NVG image intensifier scene.

These articles are reprinted to provide the reader with a reference and background to better understand NVG human factors interface issues.

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Donohue-Perry, M. M., Riegler, J. T., & Hausmann, M. A. (1990). **A compatibility assessment of the protective integrated hood mask with ANVIS night vision goggles.** (Report No. AAMRL-TR-90-030). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A229956)

Riegler, J. T., & Donohue-Perry, M. M. (1990). **A field evaluation of the compatibility of the protective integrated hood mask with ANVIS night vision goggles.** (Report No. AAMRL-TR-90-031). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory. (DTIC No. A230237)

Genco, L. V. (1985). **Night vision support devices human engineering integration.** *AGARD, Visual Protection and Enhancement* (pp. 6-1 through 6-8). (NTIS No. AGARD-CP-379)

Simons, J. C., Unger, S. E. & Craig, J. L. (1985). **Night vision goggle head-up display for fixed-wing and rotary-wing special operations.** (Report No. AAMRL-TR-85-044). Wright-Patterson AFB, OH: Armstrong Aerospace Medical Research Laboratory.

Craig, J. L. (1984). **Night vision goggle (NVG) heads-up display (HUD).** *Proceedings of the Tri-Service Aeromedical Research Panel: Vision research and aircrew performance* (Report No. NAMRL Monograph - 13, pp. 74-79). Pensacola NAS, FL: Naval Aerospace Medical Research Laboratory.

Marasco, P. L., & Task, H. L. (1998). **Examination of a method for improving night vision device depth of field.** *SAFE Journal* 28(3), 94-100.

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Task, H. L. (1992). **Cockpit/NVG visual integration issues.** *AGARD Lecture Series 187: Visual Problems in Night Operations* (pp. 8-1 through 8-6). Neuilly Sur Seine, France: NATO Advisory Group for Aerospace Research & Development. (NTIS No. AGARD-LS-187)

Pinkus, A. R., & Task, H. L. (2000). **Night vision goggles objective lens focusing methodology.** *Proceedings of the 38th SAFE Association*, <http://www.safeassociation.com>