Appendix B: NGP Projects

B.1 SUPPRESSANT SCREENING TESTS

Dispersed Liquid Agent Fire Suppression Screen; Principal Investigator: Jiann C. Yang, National Institute of Standards and Technology; 1997-1999.

Transient-Application-Recirculating-Pool-Fire Agent Effectiveness Screen; Principal Investigator: William L. Grosshandler, National Institute of Standards and Technology; 1998-2000.

Toxicological Assessment of Human Health Consequences Associated with Inhalation of Halon Replacement Chemicals; Principal Investigator: Darol E. Dodd, Air Force Research Laboratory; 1998-1999.

Agent Compatibility with People, Materials and the Environment; Principal Investigators: Marc R. Nyden, National Institute of Standards and Technology, and Stephanie R. Skaggs, Universal Technical Services; 1998.

B.2 NEW FLAME SUPPRESSION CHEMISTRY

Mechanisms of Ultra-High Efficiency Chemical Suppressants; Principal Investigators: James W. Fleming, Naval Research Laboratory, and Kevin L. McNesby, Army Research Laboratory; 1997-2000.

Identification and Proof Testing of New Total Flooding Agents; Principal Investigator: Robert E. Tapscott, New Mexico Engineering Research Institute; COR: Andrzej W. Miziolek, Army Research Laboratory; 1997.

Main Group Compounds As Extinguishants; Principal Investigator: J. Douglas Mather, New Mexico Engineering Research Institute; COR: Ronald S. Sheinson, Naval Research Laboratory; 1998.

Tropodegradable Bromocarbon Extinguishants; Principal Investigator: J. Douglas Mather, New Mexico Engineering Research Institute; COR: Ronald S. Sheinson, Naval Research Laboratory; 1998, 2001.

Flame Inhibition by Phosphorus-containing Compounds; Principal Investigator:
Elizabeth M. Fisher, Cornell University; COR: Andrzej W. Miziolek, Army Research Laboratory; 1997-1998.

Fluoroalkyl Phosphorous Compounds; Principal Investigator: J. Douglas Mather, New Mexico Engineering Research Institute; COR: Richard G. Gann, National Institute of Standards and Technology; 2001.

Super-effective Thermal Suppressants; Principal Investigator: William M. Pitts, National Institute of Standards and Technology; 1998-1990

Effective, Non-Toxic Metallic Fire Suppressants; Principal Investigator: Gregory T. Linteris, National Institute of Standards and Technology; 2001.

Environmental Impact Of New Chemical Agents For Fire Suppression; Principal Investigators: Robert E. Huie and Marc R. Nyden, National Institute of Standards and Technology; Andrzej W. Miziolek, Army Research Laboratory; 2000-2001.

Low Temperature Performance of High Boiling Point Suppressants; Principal Investigator: Jiann C. Yang, National Institute of Standards and Technology; 2000-2004.

Alternative Suppressant Chemicals; Principal Investigator: Richard G. Gann, National Institute of Standards and Technology; 2000-2004.

Environmentally Acceptable Suppressants; Principal Investigator: J. Douglas Mather, Chemical Development Systems; Scientific Officer: Richard G. Gann, National Institute of Standards and Technology; 2002-2004.

B.3 NEW AND IMPROVED AEROSOL SUPPRESSANTS

Suppression Effectiveness of Aerosols and Particles; Principal Investigator: Ronald S. Sheinson, Naval Research Laboratory; 1998-2001.

Droplet Interactions with Hot Surfaces; Principal Investigator: Yudaya Sivathanu, En'Urga, Inc.; COR: William L. Grosshandler, National Institute of Standards and Technology; 1998-1999.

Technical Support for the Study of Droplet Interactions with Hot Surfaces; Principal Investigator: Jiann C. Yang, National Institute of Standards and Technology; 1998-1999.

Powder-Matrix Systems; Principal Investigator: Gregory T. Linteris, National Institute of Standards and Technology; 1998-2000.

Electrically Charged Water Mists for Extinguishing Fires; Principal Investigator: Charles H. Berman, Titan Corp.; COR: Ronald S. Sheinson, Naval Research Laboratory; 1997.

Development of a Self Atomizing Form of Water; Principal Investigator: Richard K. Lyon, EER, Inc.; COR: William L. Grosshandler, National Institute of Standards and Technology; 1997.

Dendritic Polymers as Fire Suppressants; Principal Investigator: Nora C.B. Tan, ARL; 1998.

B.4 IMPROVED SUPPRESSANT DELIVERY

Stabilization of Flames; Principal Investigator: Vincent M. Belovich, Air Force Research Laboratory; 1997-1999.

Dual Agent Approach to Crew Compartment Explosion Suppression; Principal Investigator: Douglas Dierdorf, ARA Corp.; COR: Andrzej W. Miziolek, Air Force Research Laboratory; 1998.

A Method for Extinguishing Engine Nacelle Fires by Use of Intumescent Coatings; Principal Investigator: Leonard E. Truett, Eglin AFB; 2000.

Parametric Investigation of Droplet Atomization and Dispersion of Liquid Fire Suppressants; Principal Investigator: Cary Presser, National Institute of Standards and Technology; 2000-2002.

Advanced Propellant/Additive Development for Gas Generators; Principal Investigators: Gary F. Holland, Aerojet, and Russell Reed, Naval Air Weapons Center; COR: Richard G. Gann, National Institute of Standards and Technology; 2000-2003.

Enhanced Powder Panels; Principal Investigator: Daniel Cyphers, Skyward, Ltd.; COR: Martin Lentz, Eglin AFB; 2001-2002.

Fire Suppressant Dynamics in Cluttered Weapons System Compartments; Principal Investigator: David R. Keyser, INS, Inc.; 2000-2004.

Guidance For Re-ignition Suppression; Principal Investigator: Anthony Hamins, National Institute of Standards and Technology; 2003.

Suppressant Flow through Piping; Principal Investigator: John Chen, Lehigh University; COR: William L. Grosshandler, National Institute of Standards and Technology; 1998-1999.

Mechanism of Unwanted Accelerated Burning; Principal Investigator: Anthony Hamins, National Institute of Standards and Technology; 2001.

B.5 VIABILITY OF NEW SUPPRESSANT TECHNOLOGIES

Development of Model Fires for Fire Suppression Research; Principal Investigator: Anthony E. Finnerty, ARL; Associate Investigators: James R. Tucker, Air Force Research Laboratory; Juan Vitali, ARA, Inc.; Ronald S. Sheinson, Naval Research Laboratory; 1997-1998.

Relative Benefit Assessment of Fire Protection System Changes; Principal Investigator: J. Michael Bennett, Eglin AFB; 1998-2001.

Laser-Based Instrumentation for Real-Time, in-situ Measurements of Combustible Gases, Combustion By-products, and Suppressant Concentrations; Principal Investigator: Kevin L. McNesby, ARL.; 1997-1999.

Fast Response Species Characterization During Flame Suppression; Principal Investigator: George W. Mulholland, National Institute of Standards and Technology; 1998-2000.

Verification of Suppression Principles; Principal Investigator: J. Michael Bennett, Bennettech, LLC; COR: Martin Lentz, Eglin AFB; 2003-2004.

B.6 FUEL TANK INERTION

Active Suppression for Fuel Tank Explosions; Principal Investigator: Leonard E. Truett, Eglin AFB; 1999.