

Technology Opportunity

NASA's Operational Environment Team at Marshall Space Flight Center



NASA's Operational Environment Team (NOET) is looking for ways to share technology and information about environmental protection research with U.S. industry and other concerned agencies. NOET was organized in 1992 to ensure Federally mandated requirements of the Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA) are met to protect and restore our environment.

NASA's Marshall Space Flight Center (MSFC) in Huntsville, Alabama, has been designated the lead Center for environmental replacement and propulsion technologies. In MSFC's Productivity Enhancement Complex, NASA is partnering with other Government agencies, industry, and academia, working to develop materials and manufacturing processes to meet Federal environmental protection standards. Along with environmental concerns, these partners are searching for ways to enhance the space program as well as foster technology for America's industries.



Potential Commercial Uses

The National need for environmental protection and cleanup is propelling industry and Government agencies to look for more effective and efficient ways to operate. Through NOET's extensive data base, information about environmentally protective hardware and replacement substances are available to other Government agencies, industry, and academia.

Benefits

NOET serves as a clearinghouse for NASA-wide environmental projects. American engineers will prevent duplication of effort as they tap into NOET's pool of information. By taking advantage of available NASA-developed technology and data, U.S. industries will save valuable time and money as they strive to meet Federal regulations designed to protect the environment.



The Technology

Replacement Technology

In MSFC's Productivity Enhancement Complex (PEC), scientists are developing replacement technology for adhesives, degreasers, dewaxers, fuels, paints and paint strippers, primers, insulation, flushing and cleaning agents, precision-cleaning materials, blowing agents, and brazing alloys. In the PEC, over 40 research cells are home to investigations for better materials processing, composites manufacturing, coatings and applications methods, and insulation improvements to protect and restore the environment.

In one PEC research cell, scientists use robotics to blast frozen carbon dioxide pellets onto a surface in an effort to find a replacement for harsh chemicals currently used for cleaning. Robotic waterblasting is being used in another cell to strip coatings from a surface without harming the environment.

National health, safety, and environmental standards have led to the development of new coatings. Alternative coatings are being tested to replace anticorrosion coatings for metal surfaces, weatherized coatings for foam thermal protection systems, and sealants that prevent water from getting into areas where it can collect and promote corrosion.

Propulsion Technology

NOET's propulsion technology team is working with other Government agencies and industries to develop cleaner versions of current fuels. Along with these propulsion-related technologies, this team is also conducting hybrid rocket studies, using both liquid and solid fuels.

Technology Transfer

More information about NOET's capabilities is available through MSFC's Technology Transfer Office. Representatives from this office can help you determine if NASA's technology can be adapted to meet the needs of your organization.

■ Contacts

Technology Transfer Office
Mail Code LA01
NASA/MSFC
Marshall Space Flight Center, AL 35812

Additional information about NASA's Technology Transfer Program and a Technology Transfer Agreement are available on the World-Wide Web:

(<http://techtran.msfc.nasa.gov>)

Key Words

Environmental Protection
Technology Transfer
