# Marvin Group

## Marvin Engineering Company 261 West Beach Avenue

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### Flyer Defense

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### **Lapeer Industries**

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An Aerospace and Defense Company



















































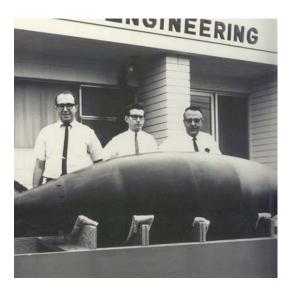




## A tradition of excellence for over 50 years

## THE MARVIN GROUP

February 10, 2013 marked an exciting milestone for Marvin Engineering and The Marvin Group as we celebrated 50 years of dedication to our customers, community and team members. It was five decades ago that our founder Marvin Gussman had the inspiration to start a small machine shop in Inglewood, California and the rest is history.



Our Founder Circa 1965

Since that time, Marvin's leadership and business philosophies have formed a leadership team and organization that has guided the group into becoming one of the premier aerospace and defense manufacturers in the world.

With a 50-year foundation, The Marvin Group supports all branches of the Department of Defense and allies around the globe on an array of programs and platforms. Furthermore, we support all of the military prime contractors including Lockheed Martin, Boeing, Northrop Grumman, Raytheon and General Dynamics.

As we embark on our next half century, we will continue to invest in our team members, providing them with state-of-the-art equipment, facilities and resources to produce world-class solutions for our customers' existing and emerging needs.

## Vision

The best people delivering confidence and security to warfighters all over the world.

## **Values**

- Partnership
- Can-Do Attitude
- Integrity
- Innovation



U.S. Marine Col. Art Tomassetti in the F-35 Lightning II Joint Strike Fighter

## Mission

Our mission is to give the warfighters we depend on, the critical equipment they depend on. We are built on over 50 years of trust, integrity and innovation in the design and production of integrated weapon systems and equipment for our customers world-wide. We build lasting relationships with our customers and suppliers and continually strive to be the industry standard for service, technical capability and quality. Our future success requires highly skilled, empowered, and diverse employees combined with our commitment to their safety, personal growth and well being. In our mission to support our warfighters, we never lose sight of our responsibility to safeguard our environment, contribute to our community and support our veterans.







# **Marvin Engineering Company**

Established in 1963, Marvin Engineering is the flagship company of The Marvin Group and a worldwide leader in Alternate Mission, Auxiliary Aircraft and Role Equipment. Support both current in-service and emerging fixed wing platforms including the A-10, F-15, F-16, F/A-18, F-22 and F-35 as well as rotary-wing applications such as UH/MH/SH-60, AH-1 and AH-64. Marvin Engineering also provides stores carriage and release equipment in support of several remotely piloted/unmanned systems such as MQ-1 Predator, MQ-9 Reaper and MQ-1C Gray Eagle. Ground launch missile systems supported include SLAMRAAM and NASAMS. We also are now developing state-of-the-art stores carriage and release

solutions for 5<sup>th</sup> Generation platforms and beyond.



As the original equipment manufacturer, Marvin Engineering provides life of program sustainment and support including training, spare parts, upgrade options and depot services.

Marvin Engineering's products and services are offered both domestically and internationally and are currently being provided through the

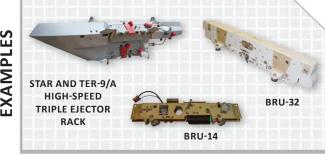
US Department of Defense (DoD), Foreign Military Sales (FMS), Foreign Military Funding (FMF), via Prime Defense Contractors, and through Direct Commercial Sales (DCS). Marvin Engineering has the experience and resources available to support a contracting strategy that is tailored to each customers' individual needs.

Worldwide Leader in Design, Development and Production of Alternate Mission, Auxiliary Aircraft and Role Equipment

LAUNCHER EXAMPLES

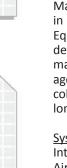


EJECTOR RACK
EXAMPLES



EXAMPLES

F-35 AIR-TO-GROUND



F-22 FUEL AND WEAPONS



Marvin Engineering proudly serves as the Managing Partner to Lockheed Martin in support of the F-35 Alternate Mission Equipment requirements. Responsible for developing five international companies to manufacture sub-systems within the package, Marvin Engineering has successfully collaborated with each company, ensuring long-term program success and execution.

Systems include: Internal Bay Adapters Air-to-Air Pylons Air-to-Ground Pylons Advanced Rail Launchers











## **Marvin Test Solutions**

Marvin Test Solutions has delivered innovative, feature-rich automated test solutions for Military, Aerospace and Manufacturing organizations since 1988. Our proven expertise tackling the demanding requirements of aerospace and military test systems carries through to our work in developing manufacturing applications, quickly creating and delivering test equipment that

> is modular, high-performance, low power and ultimately reducing maintenance and sustainment costs.



As a vertically integrated test company with a solution-centric focus, Our collective expertise in hardware, software, systems and applications offers the flexibility and innovation demanded by today's customers. By leveraging design and test applications capabilities, we are able to translate challenging test requirements and deliver turnkey solutions that are easy to use, simple to maintain, and result in products that enable customers to achieve high levels of mission readi-

Inspired by the demanding and critical nature of our customers' missions, we strive to be the world's most innovative, best-value test solutions provider with unrivaled customer support throughout a product's life cycle from requirements definition to lifetime sustainment.

Innovation. Quality. Tradition.

## Making Test Easy for the Factory, Flightline, Intermediate-Level and Depot



MTS-235 F-35 ALTERNATE MISSION

MTS-916 SIMULATOR FOR MAVERICK, **EQUIPMENT TEST SET** HELLFIRE AND PAVEWAY

### MTS-3060 SmartCan™

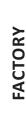
Developed by Marvin Test Solutions, the MTS-3060 SmartCan™ simplifies logistics, reduces maintenance and sustainment costs and has a compact footprint. The MTS-3060 Smart-

Can<sup>™</sup> is the only flightline test set that performs functional tests of the MIL-STD-1760 bus by emulating Smart weapons such as JDAM.

D-LEVEL

I-LEVEL













# **Marvin Land Systems**

Marvin Land Systems is an original equipment manufacturer (OEM) of Environmental Control Units (ECU) and Auxiliary Power Units (APU) for military applications. We have a rich history of successfully designing, fabricating and deploying lightweight ECUs, APUs, generators, NBC systems and propulsion cooling fans in addition to modification and overhaul kits for tanks and tracked vehicles.



Marvin Land Systems' in-house design and development team provides turnkey solutions in response to customers' complex requirements. Our extensive engineering capabilities include design and development, modeling and simulation, thermal and CFD design, structural analysis and rapid prototyping. Marvin Land Systems has proven capabilities in the areas of First Article and Qualification Testing, and provides technical assistance, training and logistics support.

Our systems provide mission-critical power and thermal management solutions to the warfighter in the harshest environments world-

wide. The products are fielded on many tracked, wheeled and tactical vehicles including the M1 Abrams, M2/M3 Bradley, M992 FAASV, M270 MLRS, M113, Stryker, LAV, Avenger and MRAP.

Innovation. Quality. Tradition.

# Field Proven Performance in Environmental Control and Auxiliary Power Systems for Military Applications

LOW PROFILE STANDALONE AIR-COOLED TRUCK MOUNTED 10kW 16kW 8.5kW 5-12kW

CLIMATE CONTROL SYSTEM OVERPRESSURE NBC SYSTEM 15.5kw 10.5kw





Marvin Land Systems is a proud supplier of the Gear Cooling System for the next generation Landing Craft Air Cushion Hovercraft for the US Navy's Ship-to-Shore Connector (SSC) program.









# **Flyer Defense**

Flyer Defense provides specially designed and customized advanced light tactical vehicles used by special operations and ground troops worldwide. Flyer Defense is a leader in mission specialized, high-performance, lightweight, off-road, wheeled military tactical vehicles, internally transportable by rotary and tilt wing aircraft.



The Flyer Gen II Advanced Light **Strike Vehicle**, a joint venture formed by Flyer Defense and General Dynamics Ordnance and Tactical Systems, is the USAF Pararescue's internally carried vehicle for operations from the CV-22. The Flyer 72 was selected by US Special Operations Command (SOCOM) to meet the GMV1.1 requirement, with an initial order of nearly 1,300 vehicles. The Flyer vehicle was developed to fill operational gaps in fixed and rotary wing ground mobility deployment requiring a lightweight, mobile, air transportable vehicle capable of being rapidly reconfigured to perform multiple missions such as light strike assault, rescue and evacuation, command and control and reconnais-

sance, either armored or unarmored. The Flyer vehicle's modular approach provides rapid mission capability in support of the warfighter.

# Innovative, Adaptable Tactical Vehicles with Superior Mobility







As a reliable and high performance vehicle, currently available in a 60" wide and 72" wide chassis, the Flyer offers safe and fast operating speeds with superior levels of mobility and maneuverability. It's highly adaptable to severe, rugged and restrictive terrains while providing off-road, cross-country mobility in all types of weather conditions.

### **Stability**

- Low Dynamic Center of Gravity
- Meets NATO Lane Change at 53 mph

### **Transportability**

- MV-22 (Internal for Flyer 60 and External)
- CH-53E (Internal and External)
- CH-47D (Internal and External)
- UH-60L/M (External)
- Air Deliverable

### **Tactical**

- Rapid Mission Reconfiguration Modularity
- High Payload-to-Weight Ratio
- High Mobility/Agility

### **FLYER DEFENSE LLC**

In partnership with

GENERAL DYNAMICS
Ordnance and Tactical Systems

Innovation. Quality. Tradition.











# **Lapeer Industries**

Founded in 1974, Lapeer Industries proudly supports the Defense, Aerospace, Energy and Commercial industries. As a vertically integrated manufacturing company, Lapeer Industries has expertise in **fabrication**, **automated welding**, **machining**, **painting**, **assembly**, **kitting**, **integration** and **program management**. We have a proven track record in the production of quality components, structures, assemblies and complete vehicle capsules and hulls.









Lapeer Industries uses robust process controls throughout its operations to ensure every project meets or exceeds all of our customers' requirements and expectations. Part of this control process is having the ability to fully support each work statement within our 250,000 square feet of facilities, focusing on quality, delivery and continuous improvement initiatives.

Lapeer Industries supports Department of Defense (DoD) armored vehicle programs, including AAV, M1 Abrams, ASV, M2/M3

Bradley, FMTV, GMV1.1, M88 Hercules, HMMWV, MRAP, M109 Paladin, PIM and Stryker programs.

## Complete Armor Subsystems

Currently operating four facilities in Michigan, our DoD programs include the Bradley Family of Vehicles Armor modernization, the completely machined structure of BAE's Amphibious Combat Vehicle, and Raytheon's Commander's Independent Viewer for the Bradley A3.

For the MRAP program, Lapeer Industries has manufactured multiple components for 6,500 vehicles and is qualified to deliver structural armored configurations with precision machining and Chemical Agent Resistant Coating (CARC) finishes.



Lapeer Industries was selected by Textron Marine and Land Systems (TMLS) to produce the 40 mm / .50 cal. turret for the Iraqi and Afghan National Armies. Lapeer has produced over 3,000 turrets for TMLS to date.

Innovation. Quality. Tradition.

Innovation. Quality. Tradition.







## **Depot and Sustainment**

As an original equipment manufacturer of Alternate Mission/Alternate Armament and Aircraft Auxiliary Equipment, The Marvin Group provides life of program sustainment and support including training, spare parts, depot and repair services as well as upgrade/modernization options. Our **Configurable AME Repair Depot (CARD)** is a self-contained, horizontal sustainment solution for 5<sup>th</sup> Generation and legacy aircraft which is forward deployable while optimizing mission readiness, streamlining the repair process, reducing logistics footprints and making spares provisioning more efficient.

#### **Sustainment customers Include:**

- All branches of the U.S. Armed Forces
- Foreign Military
- Domestic Primes
- Foreign Primes

### **Products Include:**

- Ejector Racks
- Missile Rail Launchers
- Weapons Pylons
- Fuel Pylons
- Auxiliary Power Units (Land Vehicles)
- Environmental Control Systems (Land & Maritime)
- Test Equipment & Software Upgrades



In addition, The Marvin Group has successfully planned, designed and constructed multiple in-country repair and overhaul facilities including start-up support to meet the end users' sustainment needs.

Sustainment training packages are offered both at our facilities as well as in-country based on customer requirements.

## **Ground Vehicular Structures**

Ground Vehicular Structures (GVS), an Integrated Products Team within Marvin Engineering, is a global supplier of hard shell Mobile Shelter Systems and ground support equipment. GVS offers products that enhance the end users' ability to mobilize, deploy, maneuver and sustain their missions.



26' x 8' Heated Platen Press for Foam & Beam Constructed Enclosures



### **Principal solutions include:**

- Build-to-Print and/or SOW COTS Rigid Wall Foam and Beam Shelters and Enclosures
- Rapidly Deployable Technical Shelter Solutions
- Ground Support Equipment
- Ancillary Hardware and Spares
- Automated and Functional Electronic Test Systems
- Environmental Control Systems (ECS) & Thermal Management
- Auxiliary Power Units

In addition to our standard products, GVS specializes in custom-tailored configurations as well as custom integration, modification and reconfiguration of mobile shelter systems. We can provide testing, structural analysis and design engineering services including both ECS and APU design and integration.

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