REQUEST FOR INFORMATION (RFI) / SOURCES SOUGHT

Agency: Tobyhanna Army Depot (TYAD), Department of the Army

Office: Army Contracting Command (ACC)

Notice Type: Request for Information (RFI) / Sources Sought

Subject: Rare Earth Magnets Sourcing

1.0 PURPOSE

The U.S. Army Contracting Command (ACC) is issuing this Request for Information (RFI) as part of its market research to identify companies with the interest and capability to manufacture and supply commercial-grade rare earth magnets. These magnets are critical components for Brushless Direct Current (BLDC) motors used in small uncrewed aircraft systems (sUAS).

The information gathered from this RFI will be instrumental in determining the final procurement strategy, including whether this requirement may be set aside for small businesses (in full or in part) or procured through full and open competition. The Government anticipates the possibility of making multiple awards. All small business set-aside categories will be considered.

This RFI is issued solely for informational and planning purposes—it does not constitute a Request for Proposal (RFP) or a promise to issue an RFP in the future. This RFI does not commit the Government, Army Contracting Command, or Tobyhanna Army Depot to contract for any supply or service whatsoever.

2.0 BACKGROUND

High-performance rare earth permanent magnets are the foundation of modern military actuators and propulsion systems, specifically Brushless Direct Current (BLDC) motors utilized in tactical uncrewed aircraft platforms. The Department of the Army requires assured access to high-quality, high-reliability magnetic materials to sustain key technology programs and advance future aerial capabilities.

In coordination with Army Contracting Command (ACC), Tobyhanna Army Depot (TYAD) is seeking to understand global commercial capabilities for manufacturing, sourcing, and managing high-performance rare earth magnets. The primary objectives are to ensure operational reliability, prevent supply chain disruptions, optimize delivery lead times, and maintain strict quality standards from raw material extraction to final assembly.

3.0 CAPABILITY REQUIREMENTS

The Government requires specific rare earth magnets in support of BLDC motor manufacturing. The initial request is for three different BLDC motor sizes, with options for additional magnet variations across various BLDC sizes. All supplied magnets must conform to the general material, coating, and physical specifications detailed below.

3.1 General Material Specifications

Material Type: Neodymium Magnet (NdFeB), Grade N52SH or Grade N42SH (Grade N52SH is preferred; Grade N42SH is acceptable).

Coating: Triple-layer Nickel-Copper-Nickel (Ni-Cu-Ni) plating for robust corrosion resistance.

Magnetization: Radially magnetized arc segments intended for assembly in an alternating polarity configuration (e.g., N-S-N-S).

To assist potential respondents, the acceptable technical thresholds for both material grades are defined in the table below:

Material Grade	Residual Induction (Br)	Coercive Force (Hcb)	Intrinsic Coercivity (Hcj)	Max Energy Product ((BH)max)
N52SH (Preferred)	1.42 to 1.47 T (14.2 to 14.7 kG)	Minimum 1003 kA/m (Minimum 12.6 kOe)	Minimum 1592 kA/m (Minimum 20.0 kOe)	398 to 422 kJ/m3 (50 to 53 MGOe)
N42SH (Acceptable)	1.28 to 1.32 T (12.8 to 13.2 kG)	Minimum 955 kA/m (Minimum 12.0 kOe)	Minimum 1592 kA/m (Minimum 20.0 kOe)	318 to 342 kJ/m3 (40 to 43 MGOe)

3.2 Specific Magnet Dimensions

The following physical sizing profiles apply identically to both requested magnet grades (N52SH and N42SH):

Specification	3115 BLDC Motor (10-12" sUAS)	2807 BLDC Motor (7-8" sUAS)	2407 BLDC Motor (4-6" sUAS)

Required Quantity	14 pieces per motor	14 pieces per motor	14 pieces per motor
Outer Diameter (OD)	34.5 mm	30.9 mm	26.4 mm
Inner Diameter (ID)	31.5 mm	28.4 mm	24.4 mm
Arc Segment Angle	23.7 degrees	23.7 degrees	23.7 degrees
Height	15.0 mm	7.0 mm	7.0 mm
Thickness	1.5 mm	1.25 mm	1.0 mm

3.3 Sourcing & Supply Chain Standards

Supply Chain Transparency: Respondents must be capable of documenting their manufacturing and logistics pipelines, indicating where raw rare earth materials are mined, refined, alloyed, magnetized, and packaged.

Quality Assurance: All materials must meet the exact parameters of either N52SH or N42SH grades, with zero allowance for substandard material grades, structural defects, or out-of-tolerance magnetic performance.

4.0 REQUESTED INFORMATION (CAPABILITY STATEMENT OUTLINE)

Interested parties are requested to submit a capability statement package in bullet format, addressing the following key sections:

4.1 Company Profile

Provide the following administrative details:

Organization name and full corporate address.

Primary points of contact (POCs), including name, title, email address, telephone number, and FAX (if applicable).

Website URL.

CAGE code and Unique Entity ID (UEI) number (if registered).

Business size status and socio-economic classifications (e.g., Small Business, HUBZone, SDVOSB, WOSB).

Type of ownership and a brief description of primary business focus.

Anticipated administrative/management structure if significant subcontracting or teaming is proposed.

4.2 Manufacturing & Ordering Capabilities

Describe your systems, facilities, and processes for manufacturing, tracking, and fulfilling high-precision magnet orders on a global scale.

Detail your maximum manufacturing throughput and your capacity to support surge or urgent delivery demands.

Detail your ability to supply both Grade N52SH and Grade N42SH magnets, and state which grade is standard for your production lines.

Confirm your ability to scale production and produce custom physical variations or additional dimensions of magnets as requested.

4.3 Supply Chain Transparency & Logistics

Detail your processes for tracking and documenting the upstream supply chain of raw rare earth elements (e.g., mine-to-magnet chain of custody).

Identify the geographic locations of your mining sources, smelting/alloying facilities, and final machining/magnetizing facilities.

Describe how you mitigate global logistics risks and manage potential disruptions in raw material availability.

4.4 Material Testing & Quality Control

Detail your internal testing capabilities to ensure compliance with magnetic and physical tolerances.

Describe how you verify Grade N52SH and Grade N42SH material properties, including Residual Induction (Br), Coercive Force (Hcb), Intrinsic Coercivity (Hcj), and Max Energy Product ((BH)max).

Describe how you test the thickness and adhesion of the Ni-Cu-Ni triple-layer plating (e.g., salt-spray, environmental testing), and geometric tolerances (OD, ID, Arc Angle, Height, and Thickness).

Describe your processes for managing defect rates and addressing non-conforming materials.

5.0 PRIMARY GOVERNMENT POINTS OF CONTACT

The following individuals serve as the primary technical and program points of contact for Tobyhanna Army Depot (TYAD) regarding this market research effort.

Lead Mechanical Engineer:

Corey Katsak

Email: corey.d.katsak.civ@army.mil

Contracting Specialist(s):

Ryan Kinger

Email: ryan.c.kinger2.civ@army.mil

Steve Wiltz

Email: steven.wiltz.civ@army.mil

Dean Berkovics

Email: dean.m.berkovics.civ@army.mil

6.0 SUBMISSION INSTRUCTIONS

Responses to this RFI/Sources Sought notice must be submitted electronically to the Lead Mechanical Engineer, Nicholas Paras, and the TYAD UAS Project Manager, Christopher Volch, at the email addresses listed in Section 5.0.

Submission Deadline: No later than **August 27th 2026 at 10 AM est.**

Subject Line: Please reference this synopsis number/subject line in the email and on all enclosed documents.

Page Limit: Submissions must be limited to ten (10) 8.5 x 11-inch pages.

Format: Submissions must be in Adobe PDF or Microsoft Word format, utilizing a font size no smaller than 10 point.

Content Style: Documentation must be submitted in a bullet format. No phone or email solicitations regarding the status of a subsequent RFP will be accepted prior to its official release.

Proprietary Information: Any proprietary information, trade secrets, or sensitive commercial data must be minimized and **MUST BE CLEARLY MARKED** on a page-by-page basis. All data received marked or designated as corporate or proprietary will be fully protected from release outside the Government.

Disclaimer: All received submissions become the property of the United States Government and will not be returned. The Government is not liable for, nor will it pay for, any costs, efforts, or information associated with preparing responses to this planning notice. Do not submit classified material.