

Artificial Intelligence for Critical Mineral Assessment Competition Rules

Version 4

September 1, 2022

1. Eligibility

The DARPA Artificial Intelligence for Critical Mineral Assessment Competition, which is composed of two independent challenges -- the Map Georeferencing Challenge and Map Feature Extraction Challenge – is open to individuals and team members of all nationalities and of all ages with the following caveats:

- Participation by minors requires authorization by a parent or guardian.
- An individual, organization, or sponsor is not eligible to apply or participate if they are on the Specially Designated Nationals list. <http://www.treasury.gov/resource-center/sanctions/SDN-List/Pages/default.aspx>.
- Federal entities (from the U.S. or any other country) are not eligible to participate as entrants, sponsors or official affiliates. Federal employees acting within the scope of their employment are not eligible to participate as entrants, entrant officials, team leaders or team members. A Federal employee acting outside the scope of his or her employment should consult his or her ethics official before participating in the Competition.
- DARPA employees and support contractors, their spouses, dependents, and household members are not eligible to participate.
- Any personnel funded by DARPA to support the Competition are not eligible to participate. This group includes any Federally Funded Research and Development Center (FFRDC) or Government personnel whose scope of work covers the DARPA and USGS effort, competition, or program development efforts.

DARPA reserves the right to disqualify a participant whose actions are deemed to violate the spirit of the competition for any reason, including but not limited to, the violation of relevant laws or regulations in the course of participation in either challenge.

To be eligible to win a prize in either challenge, an individual must have applied to participate in the challenge in accordance with the instructions outlined herein.

2. Challenge Format

Each challenge is intended to be conducted via a generalized format. DARPA maintains the right to modify the format of a given challenge at any time and for any reason. Challenge participants must review the specific rules and format for any challenge they choose to participate in before registering for that challenge. This can be done by reading the details of the challenge.

That generalized format for these challenges is as follows -

2.1 Challenge Duration

Each challenge is designed to be executed within six weeks. However, the specific dates and times of challenge activities for a given challenge may vary. For event details specific to a given challenge, participants should review and understand the challenge timeline posted to the website.

2.2 Registration Window

Each challenge will have a public registration window of 14 calendar days. DARPA reserves the right to modify the length of this registration window, in writing, for a given challenge at any time in order to ensure the viability of the challenge.

2.3 Questions and Answers (Q&A)

Registered participants can send their questions to ai4cma-questions@mitre.org at any time during the competition. Both the questions and the answers to those questions will be incorporated into the Frequently Asked Questions (FAQ) page on the website. To reduce duplication of questions and answers, DARPA may simply direct participants to review previously answered questions on the FAQ page and will subsequently not post their question.

2.4 Training and Sample Data

Each challenge will include an initial set of training data for participants to use. Participants are encouraged to research and use their own training data with the following caveats -

- Participants must submit references for any training data sets used in training their models as part of their final results submission.
- Participants must comply with all legal, access, handling, and other licensing requirements for any training data they use for the purposes of a given challenge.

2.5 Voluntary Validation Windows

At regular intervals during the 4th and 5th weeks of each challenge, participants will be given the option to voluntarily produce results for, and receive formal validation from, the DARPA challenge team. This is a completely voluntary activity and will not be used as part of the final evaluation in any way. The intent of these Validation Windows is to:

1. Allow participants to check that they can submit results in the correct format for the challenge before the final evaluation.
2. Allow for participants to receive regular validation of their given solution against the same metrics, validated by the same evaluation team, that will be used in the final evaluation.
3. Allow the DARPA challenge team to update the Leader Board (see section 2.6 below) with the latest results from each participant and allow participants to voluntarily see how their approach/solution compares against others.

The dates and times for a given Validation Window are specific to each challenge, so please check the dedicated challenge website. Participants who submit for validation outside of a challenge's announced Validation Windows will not receive results or ranking updates from the DARPA evaluation team.

Participants will be allowed to submit as many submissions as they want during the Validation Window. However, participants will only receive a score for their last successful submission received before the window closes. Results for a given Validation Window will be posted to the Leader Board by Friday of that same week.

The DARPA evaluation team will not provide guidance or recommendations of how to improve a given solution against any evaluation metrics at any point during either challenge. Feedback may be provided in the event results if formatting is incorrect.

2.6 Leader Board

Each challenge will have a public Leader Board published to the website for the challenge given. During the validation phase, the challenge's Leader Board will be updated every Friday with the results of the latest voluntarily submission of a given from that week's Wednesday by 11:59pm ET.

Participants who elect not to submit results during a given Validation Window will not receive an updated ranking on the Leader Board. Instead, those participants will retain

the same score that they received from their most recent successfully processed submission. Participants who never submit for a score in any Validation Window will have a score of “0” on the Leader Board. During the final evaluation phase, the Leader Board will be updated on Friday with the results of the final submission of a given participant.

For the purposes of the Leader Board only, if participants have the same score, the Leader Board will display the results in alphabetical order by participants’ last name.

2.7 Final Evaluation

2.7.1 Final Evaluation Data and Submission Window

At the end of a given challenge, participants will be given a new Evaluation Data set to produce results for. Participants will be required to submit their final results for evaluation within 24 hours of the published Evaluation Data set. Participants will only be allowed to make a single submission within this 24-hour window. Any additional submissions will be ignored by the evaluation team. Additionally, participants will be expected to provide a brief description of their approach as well as references to any training data used along with their final results.

2.7.2 Code and Technical Brief Submission Windows

In order to be eligible to win either challenge, participants must submit their code as well as a short Technical Brief. Instructions on how to submit these will be provided to all participants who successfully submitted results for the final evaluation.

- The code submitted must include all code that contributed to the participant’s final results submitted at the final evaluation stage of the challenge. It must also include instructions on how to install and operate the code in order to re-generate the results that were submitted from the final evaluation data set. DARPA will review each code base and communicate acceptance to each participant. Code bases are due within 24 hours of the close of the final evaluation submission window.
- The Technical Brief should be limited to a single page and must describe their overall approach and their training sets and methods used. Technical Briefs are due within ten calendar days of the close of the final evaluation submission window.

2.7.3 Evaluation Metrics and Tie Breakers

The metrics, method of evaluation, and rules for how to resolve a “tie” will be publicly posted on the challenge site by the launch of that challenge.

3. Finalists and Prize Allotments

DARPA will determine first, second, and third place winners to receive the cash prizes for a given challenge. Following the acceptance of final Technical Briefs and working code for all finalists, DARPA will announce the first, second, and third place winners.

DARPA anticipates prizes in the following amounts for each challenge:

- 1st place: \$10,000
- 2nd place: \$3,000
- 3rd place: \$1,000

4. Full Automation Requirement

For the purposes of these challenges, DARPA requires a fully automated solution. No human assistance is permitted in any part of the algorithm that produces the final results for a given challenge. Human assistance or other violation of these rules will result in disqualification. DARPA will preserve the integrity of competition with safeguards during the finalist confirmation process.

5. Intellectual Property

DARPA claims no rights to software developed by competitors as a result of participation in either challenge. DARPA does not intend to disclose the Technical Briefs or code bases submitted by the finalists outside the Government except where this information is handled by DARPA support contractors for administrative purposes and/or to assist with technical evaluation. All DARPA support contractors performing this role are bound by nondisclosure agreements. DARPA does not intend to disclose Technical Briefs or code to contractors to duplicate, commercialize, or for procurement or reverse engineering purposes.

6. Additional Information

The development of revolutionary technologies is a key objective of the Artificial Intelligence for Critical Mineral Assessment Competition. Teams are invited to

communicate directly with DARPA regarding any rule that restricts their ability to demonstrate technical achievement and innovative solutions.

Questions regarding rules should be sent to ai4cma-questions@mitre.org

DARPA may modify the rules, in writing, at any time and for any reason, including the accommodation of a promising technical approach that would have been excluded by the rules.

DARPA unilaterally reserves the right to cancel or modify any challenge at its sole discretion. Considerations may include availability of funds and technical viability. Participation in challenges will be governed by Event Participation Agreements that will be signed by all participants as part of the registration process.

Updated 9/1/2022: Any challenge prize is authorized under 15 U.S.C. § 3719. The Government reserves the right to withhold prizes to ineligible and disqualified individuals. Tax treatment of prizes will be handled in accordance with U.S. Internal Revenue Service guidelines. To receive a monetary prize, participants must provide a U.S. social security or taxpayer identification number (TIN). Information on how to obtain a TIN is available on the U.S. Internal Revenue Service website at www.IRS.gov. Foreign nationals will be subject to the U.S. as well as local tax codes applied to prize awards.

Application information collected by DARPA will be used solely for the purpose of administering the challenges.

Participating individuals and teams may be listed on the challenge website to enable the event to be tracked by interested members of the public. The name and photographs of the winners may be posted on the DARPA website and released to the media.

DARPA reserves the right to disqualify a participant whose actions are deemed to violate the spirit of the competition for any reason, including but not limited to, the violation of relevant laws or regulations in the course of participation. By applying to and/or participating in a challenge, applicants and participants agree to follow these rules. Applicants and participants must agree to assume any and all risks and waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from participation in the competition, whether the injury death, damage, or loss arises through negligence or otherwise.

DARPA does not authorize or consent to participants infringing on any U.S. patent or copyright while participating in a challenge. No illegal activities may be undertaken for

the purpose of participation in a challenge. The appearance and reference to any person, name, place, film, artwork or any other images that are used in connection with a challenge does not constitute or imply endorsement by the U.S. Department of Defense or by DARPA.

7. Registration Agreement Information

7.1 License

By entering this Competition, except where prohibited by law, each Entrant grants to DARPA (and their agents, successors, and assigns) the irrevocable, perpetual, transferable, sublicensable, absolute right and permission to use, edit, modify, copy, reproduce, and distribute their Entrant Content in connection with the Competition administration. In addition, each Entrant that enters in association with a company/business further, on behalf of the company/business grants to DARPA (and their agents, successors, and assigns) a non-exclusive, irrevocable, worldwide, transferable and sublicensable right and license to use such company/business's trade names and trademarks (including logos) in connection with this Competition and the promotion and marketing of DARPA. Nothing contained in these Terms obligates DARPA to make use of any of the rights granted herein and each natural person granting publicity rights under this provision waives any right to inspect or approve any such use.

Each Entrant hereby acknowledges and agrees that the relationship between the Entrant and DARPA is not a confidential, fiduciary, or other special relationship, and that the Entrant's decision to submit their Entry for purposes of the Competition does not place DARPA or its employees in a position that is any different from the position held by members of the general public with regard to elements of the Entry (including, without limitation, the Predictions and any written explanations provided by Entrant), other than as set forth in these Terms. Each Entrant understands and acknowledges that DARPA has wide access to ideas, text, images, code, applications, software, and other creative materials. Each Entrant also acknowledges that many other Predictions, written descriptions or other materials submitted in connection with the Competition may be similar to, or identical to their Predictions or any written descriptions and/or each other in idea, function, components, format, or other respects. Each Entrant acknowledges and agrees that such Entrant will not be entitled to any compensation or right to negotiate as a result of any DARPA use of any such similar or identical material that has or may come to DARPA from other sources. Each Entrant acknowledges and agrees that DARPA does not now and will not have in the future any duty or liability (direct or indirect; vicarious, contributory, or otherwise) with respect to the infringement or protection of the

Entrant's patent, copyright or other proprietary rights in and to their Entry, including the Predictions contained or described therein. Each Entrant waives and releases DARPA from any and all claims that Entrant may now or hereafter have in any jurisdiction based on "moral rights" or "droit moral" or unfair competition with respect to DARPA's exploitation of any Entrant Content consistent with the terms of the license set forth in

herein without further notification or compensation to Entrant of any kind, and agrees not to instigate, support, maintain, or authorize any action, claim, or lawsuit against DARPA, each of their licensees, or any other person in connection with this Competition, on the grounds that any use of any Entrant Content or element thereof or derivative works therefrom in accordance with this license infringes or violates any of Entrant's rights therein. In no way limiting the foregoing, each Entrant acknowledges that, with respect to any claim by Entrant relating to or arising out of a DARPA's actual or alleged exploitation or use of any Entry or other material submitted in connection with the Competition, the damage, if any, thereby caused to the applicable Entrant will not be irreparable or otherwise sufficient to entitle such Entrant to seek injunctive or other equitable relief or in any way enjoin the distribution, exhibition, or other exploitation of ARPA process, application, service or other property, and Entrant's rights and remedies in any such event are strictly limited to the right to recover damages, if any, in an action at law.

7.2 Limitation of liability and disclaimer of warranties

Nothing in these terms' limits, excludes, or modifies or purports to limit, exclude, or modify any statutory consumer guarantee or any implied condition or warranty, the exclusion of which from these terms would contravene any statute or cause any part of these terms to be void ("non-excludable guarantees"). Subject to the limitations in the preceding sentence and to the maximum extent permitted by any mandatory provisions of applicable law, the DARPA exclude from these terms all conditions, warranties, and terms implied by statute, general law, or custom, except for liability in relation to a non-excludable guarantee. Subject to any non-excludable guarantees, each entrant agrees to release, hold harmless, and indemnify (i.e., defend and/or reimburse) the DARPA from any liability whatsoever for injuries or damages of any kind sustained in connection with the use, acceptance, possession, misuse, or awarding of an award or while preparing for, participating in, and/or traveling to or from any competition - or award-related activity, including, without limitation, any injury damage, death, loss, or accident to person or property (however (but only if required by law in your jurisdiction), this release, hold harmless, and indemnification commitment does not apply to cases of bodily injury or loss of life or to the extent that any death or personal injury is caused by the negligence of DARPA or other third party, where liability to the injured party cannot be excluded by law). Further, entrant agrees that the DARPA are not responsible in any way for any

additional expenses, omissions, delays, or re-routing resulting from any acts of any government or authority. Each winner agrees that the award is provided as-is without any warranty, representation, or guarantee (express or implied, in fact or in law), whether now known or hereinafter enacted, relative to the use or enjoyment of the award, beyond any non-excludable guarantees.