



DARPA Urban Challenge

Frequently Asked Questions

Program Announcement and Application Process

July 11, 2007

Document Change Summary

Question	Description	Date
5	Answer has been changed.	December 8, 2006
32	Added.	December 8, 2006
6	Figure 2 has been changed to reflect the prize update.	December 11, 2006
4	NQE start date has been changed.	July 11, 2007

DARPA Urban Challenge

Frequently Asked Questions

1. What is the goal of the Urban Challenge program?

Unmanned ground vehicles must be able to safely operate and maneuver in the presence of other moving vehicles to realize their potential to revolutionize military ground operations. The Urban Challenge will accelerate progress in this area through the demonstration of autonomous unmanned ground vehicles driving safely in a mock urban area with other moving vehicular traffic.

2. What is the qualification process? What are Tracks A and B?

Each participant in the Urban Challenge will qualify on one of two tracks.

On Track A, teams submit proposals under BAA 06-36, a DARPA Broad Area Announcement for the Urban Challenge Program, to receive technology development awards of up to \$1,000,000. Guidelines for participation are available in the Proposal Information Package (PIP), at www.darpa.mil/solicitations.html. DARPA will evaluate the proposals using the procedures described in the BAA and PIP and reserves the right to select all, some, or none for award. Teams selected will be tested at four milestones to ensure adequate progress for continuation in the program. Milestone completion will be determined using the exit criteria detailed in the PIP. The vehicle demonstrations for Milestones 3 and 4 will take place at the National Qualification Event (NQE). Teams that successfully complete Milestone 4 will attempt the Urban Challenge final event on November 3, 2007. Teams that submit a proposal under BAA 06-36 but are not selected may enter Track B by submitting an application before October 13, 2006.

On Track B, as in Grand Challenge 2005, teams submit an application and demonstration video and participate in two preliminary events, the site visit and NQE, to qualify for the Urban Challenge final event. The 5-minute demonstration video will be evaluated using standardized criteria to select teams for site visits. At the site visits, the vehicles will be tested using a set of technical criteria and DARPA will select teams for invitation to NQE as Urban Challenge semi-finalists. At NQE, semi-finalists will be evaluated against a more challenging set of criteria and DARPA will select teams as Urban Challenge finalists. Finalists will be invited to participate in the Urban Challenge final event.

As shown in the Figure 1 below, Tracks A and B come together at NQE where all teams will compete on an equal footing. The same evaluation criteria will be used on both tracks.

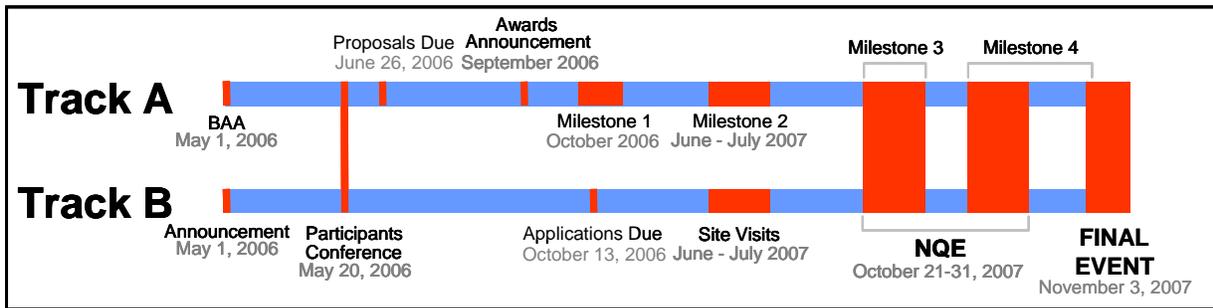


Figure 1 Relationship between Tracks A and B.

3. What are the eligibility requirements?

An organization may field one team, and that team may participate on one track only. The use of Government assets or resources is not restricted for the development or testing of the vehicle. Teams from outside the United States may participate provided they meet all eligibility requirements. Each team will specify a team leader who will serve as the primary point of contact with DARPA and must be present at the site visit, NQE, and UFE. The team leader must satisfy all of the following criteria:

- a. The team leader may be only on one Urban Challenge team
- b. The team leader must be at least 21 years of age on the date of application to the Urban Challenge
- c. The team leader must hold US citizenship and must remain a citizen for the duration of the Urban Challenge. Proof of U.S. Citizenship for the team leader must be provided by one of the following methods:
 - i. U.S. passport
 - ii. Current U.S. drivers license and birth certificate
- d. The team leader must be a U.S. resident. Team leader U.S. residency must be documented by two of the following methods:
 - i. Payroll stub issued by employer in the last 2 months
 - ii. Utility bill not more than 2 months old issued to team leader (gas, electric, sewer, water, cable phone but not cell)
 - iii. Receipt for personal property taxes or real estate taxes paid within the last year to a U.S. state, commonwealth, or locality
 - iv. Current automobile or life insurance bill (cards or policies not accepted)
 - v. Voter Registration Card from U.S. state or commonwealth
 - vi. Deed, mortgage, monthly mortgage statement, or residential rental/lease agreement

4. Where and when will the Urban Challenge take place?

The Urban Challenge final event will take place on Saturday, November 3, 2007 at a location in the western United States. The exact location will be announced before NQE.

NQE will take place October 26-31, 2007, prior to the Urban Challenge final event. The location is to be announced.

5. What are the prizes?

Participants from both tracks are eligible for the Urban Challenge grand prizes, which are first place: \$2,000,000; second place: \$1,000,000; and third place: \$500,000. No other prizes will be awarded by DARPA.

Tax treatment of prizes will be handled in accordance with U.S. Internal Revenue Service guidelines. Winning organizations are required to provide a U.S. taxpayer identification number to receive a prize.

6. What are the options on Track A?

BAA 06-36 and the PIP describe the format and instructions for submission of a Track A proposal for funds to develop an autonomous vehicle for the Urban Challenge. Proposals must stipulate either an Other Transaction (OT) agreement or a Federal Acquisition Regulation (FAR) contract. **Figure 2** further illustrates the participation process.

The OT format is applicable only if a significant proportion of the contracted effort is performed by a nontraditional contractor, or the proposer contributes at least 33% of the award funds in a cost-share relationship with the Government. The use of an OT may offer flexibility in negotiating the terms of the agreement. A sample agreement is provided with the PIP.

A FAR contract may be stipulated by any proposer without restriction. FAR contracts may require more detailed cost-accounting and offer less contractual flexibility.

In all cases, the BAA and PIP take precedence over this document.

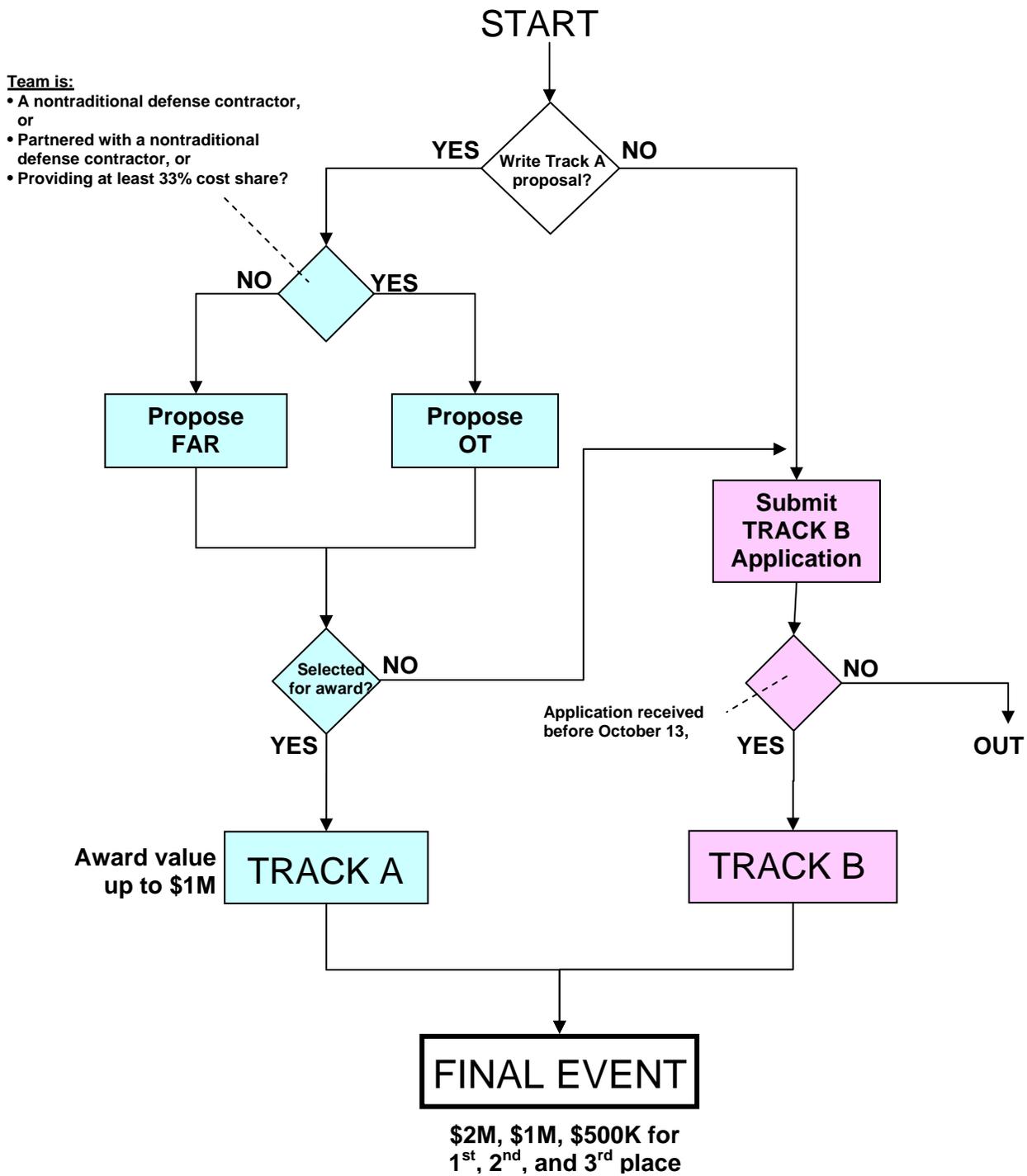


Figure 2 Urban Challenge Participation Options

7. Are foreign teams eligible to participate in the Urban Challenge?

Teams are required to have a U.S. citizen as team leader who is 21 years of age on the day the application or proposal is signed. The team leader must also hold U.S. residency. There is no

nationality restriction on the lead organization or prime contractor for the team, or team members other than the team leader.

Teams should be aware that all program events, including the site visits, take place in the United States.

8. Is the use of Government funding or assets restricted?

The use of Government property is allowable subject to the approval of the agency to which the property is accountable. This approval must be received in writing by DARPA prior to award.

If the contractor wants to leverage technology that is being developed under another Government award concurrently with any award from this program, the approval of the Government Program Manager of the other Government award must be received in writing by DARPA prior to award or with the proposal. The cost of Federally-funded research is not an allowable form of cost share.

9. With the exception of cost share required under an OT, does accepting an agreement or contract from DARPA preclude further private fundraising?

The agreement or contract with DARPA does not restrict the use of additional non-Federal funds in any way. However, proposers are neither encouraged nor required to raise additional funds.

10. Page 3 of the PIP states that Government organizations may not respond to the BAA 06-36. Is a public state-funded university considered a Government organization?

The PIP is referring to Government organizations at the Federal level. State-funded universities are not Government organizations for the purposes of the Urban Challenge and may enter a Track A proposal.

11. In determining teaming arrangements, who should be identified as the primary contractor versus the subcontractor? Would a proposal from a University carry more weight than a proposal from a company? Will this issue be a consideration for DARPA when it evaluates our proposal?

The evaluation criteria for proposals don't favor one type of organization over another. For purposes of selection, one method would not carry more weight than another.

12. At the Participants Conference, it was stated that individuals could not be a part of more than one team, but was mentioned later that an organization could. Can an organization be a major part of one team, but also help in a limited capacity with another team?

If the participation conforms to the rules, it is allowed. On both tracks, there is a team leader and list of team members, none of whom may be listed on the roster of more than one team. For teams on Track A, the prime contractor and subcontractors have a specific business relationship,

but individuals working for the prime contractor or any subcontractor are not required to be listed as team members.

13. May a group from a university be a subcontractor on multiple teams if members of the group are on different teams?

A university may be a subcontractor on any number of teams. The individuals involved may be listed on one team only (or no team at all).

14. If my organization is the lead on a Track A proposal, could it be a subcontractor on another team?

This is allowed by the rules. Organizational arrangements that are formed strictly to allow multiple entries for the same technology, however, may be considered a single entry at DARPA's discretion.

15. Does the team leader have to be a part of the organization leading a Track A proposal? For example, could a university be the lead on a Track A proposal, but subcontract the team management to a private company, with the team leader being from the private company and not the university?

The organizational affiliation of the team leader is not stipulated. He/she may belong to any organization.

16. If we choose to take the FAR Firm Fixed Price contract under Track A do we need to include a contract with the proposal submission?

If you decide to stipulate the use of a FAR contract, no contract is needed with the proposal submission. The terms are relatively rigid, so contract negotiations would start with the standard FAR clauses.

17. Under an OT Agreement, is accomplishing a milestone enough to receive the full payment for that milestone?

When the Government agrees that the exit criteria for the milestone have been satisfied according to the milestone schedule, the contractor is paid the full amount in the agreement.

18. For the Track A proposal, can \$1M be requested from DARPA in addition to cost share funds?

One-third cost share is only required from proposers stipulating the use of an OT who do not qualify as non-traditional Defense contractors or have not teamed with a non-traditional Defense contractor making a significant contribution. This means that if the full \$1M is proposed, \$667K comes from the Government and \$333K comes from the team.

19. Should private funding other than that required by cost share be reported in the Track A proposal?

All funding amounts and sources, including Government and non-Government sources, should be included in the Management and Funding Plan to clearly indicate those tasks and associated costs to be covered by the Government award. This information will be used to assess cost realism. Private funding other than required cost share will not be included in the contract or agreement.

20. Is volunteer labor acceptable as cost share under an OT?

Because cost share contributions must be verifiable, volunteer labor is not an acceptable form of cost share.

21. Can you provide additional guidance on acceptable forms of cost share under a Section 845, Other Transaction (OT) agreement?

Cost share may include both cash and in-kind contributions. Cash consists of the contractor's contribution of paid labor, either as a direct effort or as Independent Research and Development (IR&D). In-kind contributions may be in the form of real property, facilities costs, equipment, supplies and other expendable property, and the value of goods and purchased services directly benefiting and specifically identifiable to the project or program. In-kind costs can not be proposed that are being claimed (either directly or indirectly) on any other DoD contracts, grants, or cooperative agreements. The cost of government-funded research, prior IR&D, or indirect costs that are not allocable to the OT are not allowable forms of cost share. Chapter 14-9 of the DCAA Contract Audit Manual ([http://www.dcaa.mil/cam/Chapter_14 - Other Contract Audit Assignments.pdf](http://www.dcaa.mil/cam/Chapter_14_-_Other_Contract_Audit_Assignments.pdf)) gives guidance on acceptable forms of cost share under an Other Transaction Agreement for Prototype Projects. Acceptable types of cost share are also discussed at the "Other Transaction Guide for Prototype Projects" found at http://www.acq.osd.mil/dpap/policy/other_transactions.htm.

22. We plan to purchase a vehicle for this program in July 2006. If we receive an award, we would like to use the cost of the vehicle as part of our cost share contribution under an OT. Is this allowed?

Pre-award costs may be considered during the negotiations to allow for the recognition of cost share for asset purchases directly related to the project. If the cost of an asset is incurred prior to entering into an OT or the asset is used for purposes outside the project, the initial cost of the asset should be reduced in consideration of usage or depreciation not allocable to this project. Offerors should identify pre-award costs to be considered as cost share in the Management and Funding Plan section of the proposal.

23. Are Federally Funded Research and Development Centers (FFRDCs) allowed to participate in the Urban Challenge?

FFRDCs may participate on Track B only, and then only if competition with industry is consistent with their charter.

24. Are Track A funding awards targeted towards certain groups, i.e. DARPA Grand Challenge 2005 participants, defense contractors, or universities?

DARPA is not targeting specific groups with the Track A funding awards. Each proposal will be evaluated on its own merit based on the criteria provided in the PIP. Awards will be made on the basis of full and open competition.

25. Can a vehicle be modified and still be considered a “stock vehicle”?

The suspension, wheels, interior, and shell may be modified without modifying the status of the vehicle as “stock.” All safety-critical components must be retained from the original stock vehicle, including the chassis, steering, fuel system, braking system, and drive train.

26. If a contractor acquires materials and equipment using Government funds, who will retain title?

For contracts with nonprofit institutions of higher education and nonprofit organizations whose primary purpose is the conduct of scientific research, the title to all materials and equipment purchased with Government funds (*that are determined in negotiations to be allowable and necessary for the project*), will vest in the contractor upon acquisition without further obligation to the Government, in accordance with FAR 35.014. (Note: If title to equipment is vested in the contractor, depreciation, amortization, or use charges are not allowable with respect to that equipment under any existing or future Government contract or subcontract.)

For contracts with commercial entities, the title to all property acquired by the contractor shall vest in the Government in accordance with the requirements in FAR 52.245-2, entitled "Government Property (Fixed-Price Contracts)".

To the extent that materials and equipment are proposed to be purchased with Government funds under an OT, the agreement will include language that states the title to all materials and equipment purchased with Government funds (*that are determined in negotiations to be allowable and necessary for the project*), will vest in the contractor upon acquisition without further obligation to the Government. This will be true for OTs with both commercial entities and non-profits.

27. We have a system we sell commercially that we would like to use under a Track A award for the Urban Challenge program. Since it is a commercial product, we would like to maintain complete proprietary rights. May we use Grand Challenge funds to purchase the system at the normal commercial price, even though we are the creators of this system? Would this purchase force us to assign GPR rights to this product that was already developed prior to the Urban Challenge funding period? Would this purchase violate any issues with the OT for Prototypes contract?

If the item is not required as part of a deliverable under this effort, whether commercial or noncommercial, the rights for any item developed prior to an award from this program would not change as a result of this award.

If the item is required as part of a deliverable under this effort and this item is a commercial item in which the Government has not previously obtained rights, the contractor must deliver the item

to the Government with at least the rights afforded under the standard commercial license for that product. If the item is required as part of a deliverable under this effort and this item is a non-commercial item in which the Government has not previously obtained greater rights, the Offeror must afford the Government at least limited/restricted rights for items exclusively developed by the contractor, and at least Government Purpose Rights for items developed in part with Government funding. However, it should be noted that the Technical Paper & Final Report required in the PIP shall be provided with unlimited rights.

If a commercial item is improved under a Government award, the improvement would be considered non-commercial and the Government would have rights in the improvements.

No hardware deliverables are required under this effort, but source code for the prototype must be provided along with the final report. The Milestone 4 language in the PIP Mod 02 will describe the requirement to deliver source code at the time of final report submission.

Offerors may propose the use or purchase of commercial systems, software, and equipment under a contract or agreement from this program. Offerors should review the answer to Question 26 dealing with the ownership of materials and equipment purchased with Government funds.

28. We intend to spend more than \$1M to participate in the Urban Challenge. How do we indicate this in the proposal?

The proposals should clearly delineate between the tasks (and associated costs) to be performed under the DARPA contract or OT and the tasks to be performed using other funds. This may have an impact on equipment title (question 26) and IP rights (question 27).

29. Mod03 to the PIP adds the following deliverable requirement to the final report: "Complete source code for each software module in which the Government has Government Purpose Rights." Does this refer only to source code developed with funds provided under a prime contract with DARPA on the Urban Challenge?

Only source code modules that have been developed exclusively with Government funds or with mixed funding for the Urban Challenge program must be delivered.

30. In the PIP, Section 4.2 - Technical Approach Factors reads: "Proposer presents a clear understanding and credible technical approach for developing a real-time processing system....." Is there a particular Linux or UNIX based RTOS you prefer?

There is no RTOS requirement. The processing system referred to on the vehicle clearly must be able to handle events as they arrive in the urban traffic environment. In this sense the processing system, from sensors to actuators, must be "real-time" and make decisions on moving objects. How this is implemented is left to the proposers.

31. In the Urban Challenge Application Part 2: Proof of U.S. Citizenship & Residency, Waiver and Release of Indemnity and Liability, what does the term "hold harmless" mean?

In the context of this document, the signer of the waiver is waiving any claims it or members of its team might potentially have against DARPA and other participants for damage to the persons and property (vehicles) of its team and also any damage to its competitive standing. This waiver of claims is not intended as an agreement to pay claims arising from damage or injuries to third parties.

32. For Track B teams, are the \$50K and \$100K prizes for advancement to NQE and the Urban Challenge Final Event going to be awarded?

No. As of December 8, 2006, the only prizes to be awarded for the Urban Challenge will go to the top three qualifying finishers.