

## HURT Frequently Asked Questions (FAQ)

1. Will industry brief be available online?  
*Yes.*
2. Was there a seedling effort for the HURT program? Please describe.  
*A seedling effort preceded HURT. The seedling, Hunter-Killer Agile Team (H-KAT), focused on command, control and deployment of organic aerial vehicles from a mothership for urban operations.*
3. Does HURT envision the addition of information from the larger ISR constellation? For example, larger UAVs and national systems.  
*This is not a focus of the HURT program.*
4. Is there a connection to the ARMY FBCB2 Program?  
*No*
5. Will parts of the HURT Program be ITAR restricted?  
*DARPA anticipates that some technology elements will be ITAR restricted.*
6. Will there be a pre-proposal before the actual proposal submission?  
*No*
7. Will there only be one contract per area?  
*DARPA anticipates up to four total awards spanning all four technology areas. Multiple awards in any one topic area is possible but not likely.*
8. Please confirm technical teams need not bid with “Prime” i.e., a Systems integrator.  
*Offerors can bid any 1, 2, 3, or 4 topic areas.*
9. Can the system integrator assume the output of the 3 technology areas as GFE with DARPA held responsible to deliver? Or is the system integrator held responsible to develop their own technologies, so that they deliver, regardless of the performance of the tech developers?  
*The system integrator is responsible for integrating the technologies developed in all technology areas.*
10. What is the approximate funding/duration for the HURT program?  
*DARPA anticipates that the total duration of the HURT program will be 4 years with approximately \$40M total funding.*
13. Are phases to be bid as separate options?  
*Phases are to be structured and priced as separate and distinct work efforts.*

11. Can offerors bid on technology area(s) in separate proposal and can bid on an integrator's team in separate proposal?  
*Yes*
12. Do integrators have to separately cost the 3 technology areas when bidding on all four technology areas?  
*Yes.*
13. Is it possible for DARPA to select an integrator's proposal but not use all 3 of the technology subcontractors he has chosen?  
*For selected proposals, DARPA may choose to fund any combination of technology areas bid in a proposal.*
14. Please clarify whether DARPA wants integrated proposals or whether teaming across areas will occur after selection.  
*Teaming is encouraged, however, not required.*
15. Are the team leaders in a topic area expected to be companies, e.g. as opposed to Universities?  
*Team leaders are not constrained to be a specific type of organization.*
16. How will the platforms be made available to contractors?  
*The system integrator will be required to provide and maintain a sufficient set of platforms to execute all HURT demonstrations. It is anticipated that additional platforms will be provided GFE. Assume that platform operational and maintenance costs for the GFE platforms will be funded separately by the government.*
17. What are the proposal page limits?  
*Page limit depends on the number of technology areas that are bid in a proposal. The more technology areas bid, the greater the number of pages allowed. Page limits will be specified in the Proposer Information Pamphlet.*
18. Are the 3 technology areas of equal importance? If not, what is the relative funding split (approximately)?  
*Emphasis is on User Management, however, this may not translate directly into funding allocation.*
19. Even if an offeror does not bid as system integrator, would DARPA be interested in options for including different platforms (ground and air autonomous vehicles) for test plan?  
*No.*
20. Is HURT interested in simulated/virtual test environments?

*Techniques that facilitate integration are encouraged for use as tools, but are not focus of technology development.*

21. Will the full list of commands shown in the industry brief for the prototype command language be made available? E.g. “observe <location>”  
*This was notional list not a specification. The list will be built up over the duration of the program with inputs from program participants.*
22. A centralized HURT controller was described in the industry brief. Is the vision of a single such controller, or is a limited hierarchy of central controllers a viable option?  
*A hierarchy or distributed implementation is acceptable, provided that it is not platform centric.*
23. Characterizing the UGVs as “teleoperated only” contradicts the stated intent of having vehicles interchangeable (able to take over each other’s tasks). Must the UGVs really be teleoperated only? What if vision guided?  
*No. Industry Brief did not mean to imply that UGVs must be teleoperated, only that if they are, a HURT system can provide controls, e.g. analog control inputs. As-is automation technologies may be considered for visual servoing. HURT will not develop visual guidance technology.*
24. What is the role of intrusion protection and other information assurance technologies in HURT? (i.e., access control, low-power wireless encryption, intrusion detection and response, etc.)  
*These are not core research topics. Best in class solutions may be considered for HURT program.*
25. It appears that relatively more automatic target recognition (ATR) is required as the program progresses with each phase. Is ATR a backbone of the program?  
*The research core of HURT doesn’t include ATR exploitation algorithms. Best in class solutions from government, industry and academia should be leveraged when appropriate.*
26. Would HURT proposal reviewers be interested in research on speech understanding? To what degree is HURT interested in research in Human-Computer interfaces for the urban battlefield? How strong is interest in Human Factors research, in general?  
*No new development in these areas is targeted by the HURT program.*
27. How does HURT leverage DARPA’s cognitive systems programs?  
*This is not a core research area. Best in class solutions are encouraged. Leveraging specific technologies from these programs can be facilitated by DARPA when appropriate.*

28. What is role of communications, network management technology?  
*Communications technology is very important, especially with regard to providing live imagery to warfighters. The system integrator is responsible for selection and implementation.*
29. GPS Navigation in urban areas can be problematic. How will this be addressed?  
*The implementation for the Planning and Control component should handle this type of contingency.*
30. Will the commanders' guidance represent all the Rules of Engagement (ROE) the system will have awareness of? Can we make this assumption? If not, will the service requester need to have the ability to enter ROE?  
*Assume that all ROE are provided by commanders' inputs that are separate and distinct from service requests.*
31. Will system integrator be responsible for vehicle Interface Control Documents (ICDs) or will government provide?  
*System integrator will be responsible. The government will assist the system integrator in obtaining ICDs for government-furnished platforms when provided.*
32. Can we assume that Army Common Operating Picture (COP) is available?  
*No.*
33. If an offeror is interested in bidding only the System Integration (SI) piece, is that offeror expected to include their own approach to the three other technical areas ( as part of their SI proposal) so that the offeror is proposing a total system solution to HURT (option a)? Or is that offeror expected to only propose a "shell" into which the three technical areas developed by the other three contractors can be integrated(option b)?  
*Proposers in the Systems Integration area are not expected to propose the other three technical areas as well. Integration technologies are only part of the SI task.*
34. If DARPA selects "option b" above, how is the SI expected to propose their concept without knowing the technical approach taken by the offerors in the other three technical areas? Please recognize that the SI offeror can offer a generic "shell" only up to a certain point; beyond that, in order to turn in a good and accurately costed proposal, the SI offeror really needs to understand the technical approach of the other three technical areas, and even have the ability to tweak their approach so that they can all fit into a system solution.  
*Proposers in the SI area are expected to propose integration technologies consistent with the task delineation as detailed in the PIP. SI proposers are*

*also expected to show an ability to design and implement interfaces to the other technologies after their details are disclosed at the kickoff meeting.*

35. If DARPA selects "option b" above and one or more of the contractors in the other three technical areas fail to deliver their products on time, who is liable for the performance of the SI contract? Is it DARPA or is it the SI contractor? It does not seem fair to hold the SI contractor liable without giving them control of their own destiny.

*No contractor will be held liable for the performance of another contractor.*

36. If DARPA selects "Option a" above and subsequently DARPA selects one of the other three technical area contractors to replace a piece of what the SI proposed in his proposal, that could cause a problem. If the technical area contractor selected by DARPA fails to perform, then the entire SI effort is in jeopardy. Who is liable in this case--DARPA or the SI? Please be assured that it is our intent to work collegially with DARPA and the other three contractors. But a government contract is a legal instrument and we need to clearly work these issues now, in order to avoid problems later.

*A proposer in the SI area is free to propose in the other three areas, but these must be modular, separately-priced components. Systems Integrators who propose tightly coupled technologies that cannot stand alone do so at their own risk.*

37. Regarding proposals on multiple topics. May we propose two different topics in the form of two different (63 page) proposals, or must they be in a single (63 + 5 = 68 page) proposal?

*Under the rules, you may submit as two proposals, but we would strongly prefer a single proposal for the convenience of the reviewers.*

38. If exploitation algorithms (e.g., mosaicking algorithms) are proposed for inclusion in sensor models, whose responsibility are they?

*They are the "responsibility" of nobody, because they are not required. However, if the algorithms are part of an autonomous behavior on the platform or the ground station, they are the domain of platform modeling team. If they are resident in the HURT command and control center (HC3), it is reasonable for the systems integrator to propose as an exploitation proxy (see PIP), but again, they are not a HURT requirement.*

39. What is meant by a .5km x .5km area? Is this total area, or feature size?

*It is the total map area of, for example, a MOUT site.*

40. The PIP calls for CDR "six weeks before the demo". Can it be held earlier?

*Subject to agreement of the team, you may hold it earlier.*

41. Is the government open to alternative pricing strategies for the UAV platforms as proposed by a systems integrator?

*Yes. The pricing agreement is negotiable.*

42. Does the cost of the UAVs proposed by a systems integrator have to fall within the budget guidelines (i.e., \$40M) mentioned in the PIP, or does the government have other funds for them?  
*They will be paid for with program funds, which are all included in the estimated \$40M program cost. They should be budgeted in proposers' cost volumes.*
43. The hardware for the HC3: who is responsible for it?  
*The systems integrator.*
44. Do performers' resumes need to be counted in the page limitations of volume 1?  
*Yes.*
45. In the industry day charts (specifically, #11), one figure has a box labeled "consistent autonomy interface". Can you explain what you mean by this?  
*That box is meant to represent the goal of HURT that a user's interface to the system is a level of abstraction away from any platform; that the interface provides autonomous capabilities that can be made insensitive to platform team composition.*
46. The PIP contains both phrases "commander's intent", and "commander's guidance." What is the distinction?  
*"Commander's intent" is the complete mental model of the human commander, including his/her internal temporal model of the situation, contingencies, context, etc. "Commander's guidance" is the explicit representation of his/her instructions and preferences as formally captured at a particular time. "Guidance" can be thought of as a snapshot of "intent".*
47. Which HURT component is responsible for delivering the I/O devices used by HURT embedded soldiers?  
*The User Management component is responsible for devices used by HURT "Users". The Systems Integrator is responsible for devices used by the HURT "Operator" and "Commander". See section D.1.2 for the definition of these human constituents.*
48. Will the User Management and Planning and Control components of HURT have access to detailed 3-D databases that describe the AO? If so, in what form?  
*It is assumed that standard map and elevation data will be available prior to the operation, but that it may vary in format, detail and accuracy. The government will facilitate access to appropriate databases up to the level required to execute the demonstrations, subject to classification restrictions. It can be assumed as the operation progresses, more complete and detailed data will become available at the HC3, where the Planning and Control*

*component can access it, than at the User terminal, which may become detached from such a database. The User Management contractor must consider interfaces that can be used with uncertain situational and geometric data.*

49. In the HURT PIP, Section F.4 (page 36) refers to the TFIMS Reporting Requirements. Are these the \*only\* reports required during contract performance? If not, where in the PIP are those requirements specified?  
*Required reports consist of regular TFIMS reporting, a final report, and test plans/analyses as appropriate to each technical area that shall be specified by Government contracting agent.*
50. Section F.5 of the PIP ask personnel with less than 50% involvement to NOT include resume. Does this exclude (more or less) all academics?  
*Resumes should be included for academicians who are planning to allocate more than 50% of their normal research load to HURT.*
51. Is there a separate section for references, with page limitations, or is it part of technical approach?  
*There is no separate section for references. Any necessary references must be included within the page limits of the technical approach section.*
52. In what form are the UM-prioritized RSTA requests given to the P&C component by the UM component? Is it a complete listing of all outstanding requests? Is it a "stream" of prioritized requests? Is it through add/remove/insert operations on an assumed list?  
*The syntax and content of the RSRs is to be determined by the User Management contractor, in consultation with the rest of the team.*
53. Does the P&C produce a "best" plan for a given set of prioritized requests (a plan that may violate Commander's Intent), or does it reject any prioritized list for which it cannot generate a plan the meets all request constraints?  
*The manner in which the Planning and Control component processes priorities and manages constraints is to be proposed by the contractor.*
54. If the situation changes during the execution of a plan, can the UM "bump" a request served by that plan to a higher priority, or lower its priority?  
*The User Management component may adjust priorities in real time.*
55. PIP, page 9, 1), bullet 2 states "it may be possible to exploit synergies in the assets." My reading of the PIP (for example, Figure 2) is that UM has no platform knowledge and therefore cannot find such synergies. How have I misinterpreted the PIP?  
*The reference bullet describes the benefit to the user of synergies with resources. The bullet clearly states that implementing this capability is the responsibility of the Planning and Control component.*

56. Which technology component in HURT is responsible for routing information back to the appropriate user?

*The Systems Integrator is responsible for the communications architecture, and for representing that architecture to the Planning and Control component. The Planning and Control component is responsible for using this information, together with knowledge of the RSRs and system status, to plan deliveries back to the appropriate user(s).*

57. PIP, page 10, last bullet: "The commander must be given the ability to overrule a plan, issue his/her own requests, and adjust user priorities." This sentence is included under "Planning and Control," but it seems to be the role of the UM component (PIP, page 9, 1) bullet 3, for example). Can you provide guidance on which component has this responsibility?

*The User Management component interfaces only to the Users. See section D.1.2. for the distinction between Users and the Commander.*

58. Is this a new hardware device or an update to an existing device the warfighters currently have?

*The User device is left to the discretion of the proposer. No device has been pre-selected.*

59. If the device exists, will the implementation be completed in this program or a separate program? Meaning can a surrogate device (personal computer) be used for this program with the implementation of the existing device later.

*See above.*

60. Who supplies the hardware device?

a. If a new device: User Management or System Integration?

b. If an existing device: User Management, System Integration or GFE?

*The User Management contractor will supply the device used by Users.*

61. Which component is responsible for the communications between the HC3 and the user device (including the physical, link, networking, and network management aspects)?

*The Systems Integrator is responsible for all aspects of wireless communications between the HC3 and the User device.*

62. Contingency and fall-back behaviors are mentioned in the PIP. Can you clarify the intent and nature of these behaviors?

*Contingency and fall-back behaviors are alternative approaches to robustness for real-time planning. The specific approach and implementation is left to the proposer.*

63. What is meant by "atomic" behaviors, as the term is used in the PIP? What behaviors may be modeled as atomic behaviors?  
*Atomic behaviors are the lowest-level behaviors that can be communicated to the vehicle by the ground station. Higher-level behaviors (i.e., those composed of atomic behaviors) may also be available and will also have to be modeled by the Platform Modeling component. The Planning and Control component may use a representation of even higher level behaviors, but these will not necessarily be directly communicable to the vehicle.*
64. By "Collective" behaviors do you only mean the behaviors for teams of UAVs working together?  
*Yes (but the "team" may consist of UGVs, USVs, etc., as well).*
65. Does the Platform Modeling component need to consider only existing autonomous behaviors or future behaviors as well?  
*The platform models must consider all existing behaviors plus be extensible to all future behaviors anticipated by the contractor*
66. Can you elaborate on the definition of "data driven behaviors"?.  
*Data-driven behaviors are behaviors that require the direct exchange of data or knowledge for coordination of multiple platforms. An example is the hand-off of moving vehicle tracking, where multiple RSTA platforms might have to reach a mutual understanding of what the target is and what its characteristics are.*
67. We would like to propose that HURT use our vehicle platform. Which topic area should be bid to?  
*Vehicle platforms are to be provided by the systems integrator as part of a complete systems integration proposal.*
68. Reference PIP H.2.6. In the 5 page technology component sections, is there a particular outline of topics DARPA would like us to cover? If so, where is the reference in section H of the PIP that instructs the offeror on how those pieces should be covered?  
*No; there is no specific outline for the 5-page technical approach sections, except that they should focus specifically on the proposed technologies that align with HURT technology topic areas.*
69. PIP H.2.7 requires a Cost Summary by Government Year in Volume I, Section F.4. If proposing in more than 1 topic area, should the summary cover all topic areas or should the proposer submit one summary per topic area?  
*There should be a separate summary per topic area, but a grand total should be clearly indicated as well.*

70. According to PIP Section F.3, Submission Guidelines, offerors must upload the electronic version of the full proposal by 12:00 PM 13 February 2004. We assume that paper submission is not required. Please confirm.

*Correct; paper submission is not required.*

71. Please clarify number of pages allowable for summarizing personnel qualifications.

*Provide a summary qualification for each person who will spend at least 50% of their time on HURT. Do not exceed a maximum of 1-page for any person. The qualifications for more than person may be specified on a single page.*

72. Do Bibliographic references count against the page limit?

*No. Bibliographic references, if included, should be an addendum to the Technical Proposal. This addendum may include citations only.*