The purpose of this Amendment is to address the following queries:

**Q1:** Should responders identify the specific Services they plan to implement?
**A1:** Yes, the responders should identify the specific Services they plan to implement.

**Q2:** Are the Services listed on pages 5 through 7 of the BAA meant to list the possible tasks that proposers should propose to perform?
**A2:** The Services listed on pages 5 through 7 of the BAA are meant to list possible tasks that proposers could propose to perform. However, related tasks that are within scope of the research opportunity description tasks (page 2 to 4) are acceptable.

**Q3:** Should responders propose to implement ALL Services?
**A3:** Responders are not required or prohibited to implement all services.

**Q4:** Is it permissible to propose to implement only a subset of the Services listed on pages 5 through 7, or are responders expected to propose to implement all services?
**A4:** Yes, it is permissible to propose to implement only a subset of the Services listed on pages 5 through 7 or implement all services.

**Q5:** Confirm maximum length of White Paper technical section - page 14 states: "A five (8) page technical section…..".
**A5:** The maximum length for White Papers is eight (8) pages.

**Q6:** Section I, General Information: Research Opportunity Description (Page 3), states that "These templates will be constructed using a model-based approach…..". What is meant by "model-based approach" in this sentence?

1. "model-based" in the sense that is often used by the artificial intelligence automated planning community - so that the templates would be generated by an automated planning system that relies on a "planning domain model" of the possible actions that can be performed and their effects and required conditions?

2. "model-based" in the sense that that the plan is composed of a scheduled set of actions and associated assumptions, information needs, etc., and those actions are selected by a Service and/or by a human planner from a computer-based library of actions, and then configured/adapted to support the current mission?
3. "model-based" in a more general sense to mean an approach where the content and format of the templates conform to some standard and are machine-readable?

A6: The work descriptions under #1 and #2 (man-machine interface) are expected.

Q7: Section I, General Information: Research Opportunity Description (Page 3), states that "These templates will be constructed using a model-based approach and will contain assumptions, generalizations, and information requirements based on the characteristics of the specific mission assignment."

Q7a: Clarify what is meant by “generalizations”.
A7a: Certain tasks with associated information requirements can map to different missions.

Q7b: Provide an example of a generalization?
A7b: An example of generalization includes information requirements associated with an amphibious landing.

Q7c: Do mission templates stored in the Cloud contain mission-specific information (that must be changed/adapted to support new missions), or are they made by generalizing an actual mission plan to remove mission-specific information (that would be later filled in by the human user or automated program when the general template is applied to a new mission)?
A7c: The latter, they are made by generalizing an actual mission plan to remove mission-specific information (that would be later filled in by the human user or automated program when the general template is applied to a new mission).

Q8: With regard to Mission Finalization Service discussed in Section I (page 5), confirm whether the Navy envisions this Service outputs to be:

1. A relevant mission template + additional information such as assumption, information needs, and metrics. This output is then presented to a human planner. The human planner would then fill in mission-specific information into the mission template and make changes to the template, as necessary, to adapt the mission plan to the current planning problem.

A8: A scope description is a possible approach, noting that a machine can also automate the extraction of information from text.

2. A mission plan, ready to be executed. This presumes that the Service fills in mission-specific information into the mission template and makes changes to the template, as necessary, to adapt the mission plan to the current planning problem.

A8: Yes, the presumption is correct.

3. Something in-between (1) and (2). The Service would produce the outputs listed in (1). In addition, it would automatically fill in SOME information and make SOME changes to the template, to partially automate the plan adaptation process. However, the human planner would use the output of this Service to complete the plan, using the Decision Support capabilities. Is it desirable that the system automate plan adaptation to the extent possibly, even if full automation is not feasible? Or, in other words,
is intelligent automation of planning a priority for this program, or is the emphasis on improved data access and decision-support enabled by the NTC?

A8: Both scenarios are acceptable.

Q9: With regard to queries Q7 and Q8, under the assumption that the system finds a mission template for amphibious operations that achieves similar goals, but the previous mission template assumed a different location, requiring some parts of the plan, such as the number of units and the ingress routes, to be modified.

Q9a: Do you envision mission templates to be so general as to be "relevant" to a different set of mission requirements that, for example, specify a different location than the "relevant" mission template?

A9a: Yes, we envision mission templates to be so general as to be "relevant" to a different set of mission requirements, or composable.

Q9b: Would you expect the human planner to make these changes, or would you expect some Service to make these changes.

A9b: Services will be used if technology allows. The overall effort will probably be a mixed initiative.

Q10: Is the automated sensor data analysis (e.g., track identification, classification, tracking) within the scope of this BAA?

A10: Only if required and not already available.

Q11: Warfighting Function Mission Integration Service - planning vs. execution. Is this Service meant to be used during planning, during execution, or both?

A11: The Service is mean to be used during both.

Q12: Section I, General Information states that "The templates will continuously be updated to maintain a common and complete operational picture afloat and ashore." Does "continuously updated" mean that after the mission plan is developed but before/during mission execution, if changes to DECISIONS in plan (e.g., planned actions) are made, the plan should be updated and uploaded back to the Cloud?

A12: Yes, "continuously updated" mean that after the mission plan is developed but before/during mission execution, if changes to DECISIONS in plan (e.g., planned actions) are made, the plan should be updated and uploaded back to the Cloud.

Q13: Will the Navy provide access to subject matter experts?

A13: To the extent that we can, but offerors should have some expertise.

Q14: Will the Navy provide access to subject matter experts, such as Expeditionary Warfare planners and Naval Tactical Cloud technical experts, or should responders include SMEs on their project teams?

A14: See the response to Q13 above.
Q15: Should the White Paper summarize the company background and prior relevant work performed by the responder?
A15: The White Paper submission should only summarize the company background and prior relevant work performed only if that is a component of the technical content.

Q16: The EXWNTC is primarily interested in processing data within the cloud. Do you have interest in looking at how the clouds communicate in a disruptive network? Are there any plans to operate the cloud over disruptive networks?
A16: For EXWNTC, any information system must be resilient to disruptive networks. Offerors should note that the BAA is focused on the development of applications.

Q17: If requested, will a time extension be granted?
A17: The government does not intend to approve an extension under this BAA.

All other information stated in ONR Broad Agency Announcement (BAA) 14-011 remains unchanged.