(2) in clause (ii), by striking the period at the end and inserting "; and"; and
(3) by adding at the end the following new clause:

"(iii) that appropriate entities in the Department are reviewing all open source publications from both the United States and outside the United States that contribute to, affect, or advance-

"(I) artificial intelligence research and develop-

ment; or

"(II) the understanding of the Secretary con-cerning the investments by adversaries of the United States in artificial intelligence and the development by such adversaries of capabilities relating to artificial intelligence.".

SEC. 222. ADVISORY ROLE OF JASON SCIENTIFIC ADVISORY GROUP.

- (a) Ongoing Engagement of Certain Scientific Advisory Personnel.—
 - (1) IN GENERAL.—The Secretary of Defense shall seek to engage the members of the independent, private scientific advisory group known as "JASON" as advisory personnel to provide advice, on an ongoing basis, on matters involving science, technology, and national security, including methods to defeat existential and technologically-amplified threats to national security.
 - (2) AVAILABILITY TO OTHER FEDERAL AGENCIES.—At the request of a Federal agency outside the Department of Defense, the Secretary of Defense shall seek to make personnel engaged under paragraph (1) available to such agency for the purpose of providing advice to the agency on the matters described in such subsection.
- (b) Arrangement for Conduct of National Security STUDIES AND ANALYSIS.-
 - (1) IN GENERAL.—Pursuant to subsection (a), the Secretary of Defense, acting through the Under Secretary of Defense for Acquisition and Sustainment, shall seek to enter into an arrangement under which JASON may provide national security research studies and other analyses to the Department of Defense and other Federal agencies to meet mission requirements and agency needs.

(2) FORM OF ARRANGEMENT.—The arrangement entered into under paragraph (1) shall be in a form the Under Secretary of Defense for Acquisition and Sustainment determines to be appropriate for the Department of Defense, which may include a contract, a grant, a cooperative agreement, the use of other transaction authority under section 2371 of title 10, United

States Code, or another such arrangement.

(3) TIMING OF ARRANGEMENT.—The Secretary of Defense shall seek to enter into the arrangement under paragraph (1) not later than 120 days after the date of the enactment of this Act.

(4) TERMS OF ARRANGEMENT.—The arrangement entered

into under paragraph (1) shall-

(A) if specifically negotiated as part of the arrangement, provide for the Department of Defense to reimburse the entity supporting JASON for all or a portion of the overhead costs incurred in support of the arrangement;

Deadline.

Reimbursement.

(B) allow Federal Government entities outside the Department of Defense with responsibilities relating to national security to seek to engage JASON to perform individual studies relating to national security matters as part of the arrangement; and

(C) require that a Federal agency that engages JASON to perform a study under the arrangement will fully fund such study, including a proportional percentage to the total

overhead costs incurred under the arrangement.

(5) LIMITATION ON TERMINATION.—

(A) IN GENERAL.—The Secretary of Defense may not terminate the arrangement under paragraph (1) until a period of 180 days has elapsed following the date on which the Secretary—

(i) notifies the congressional defense committees of the intent of the Secretary to terminate the arrangement; and

(ii) submits the report required under subparagraph (B).

(B) REPORT REQUIRED.—

(i) IN GENERAL.—If the Secretary of Defense determines that the arrangement under paragraph (1) should be terminated, the Secretary shall submit to the congressional defense committees a report on the proposed termination of the arrangement.

(ii) Elements.—The report required under clause

(i) shall include the following:

(I) A summary of the execution of research projects conducted by JASON over the four fiscal years preceding the date of the report, including the projects requested by the Department of Defense and the projects requested by other Federal agencies.

(II) An analysis of the costs to the Department of Defense of maintaining the arrangement under which JASON provided national security research studies, including any overhead costs incurred by the Department or shared among Federal agencies over the four fiscal years preceding the date of the report.

(III) A timeline for the potential transition or termination of the activities, functions, and expertise provided by JASON under the arrangement.

(IV) An assessment of the impact that the termination of the arrangement with JASON will have on defense research studies and analytical capabilities, including a mitigation plan that identifies where alternative and comparable scientific advice and expertise is available and a comparison of the costs associated with each alternative.

(iii) FORM OF REPORT.—The report required under clause (i) may be submitted in unclassified or classified form.

(6) Annual summary report.—Not later than March 1 of each year beginning after the date of the enactment of

Time period.

Notification.

Determination.

Time periods.

Summary.

Cost analysis.

Timeline.

Assessment. Mitigation plan.

Summaries.

this Act, the Secretary of Defense shall submit to the congressional defense committees a report that includes—

(A) a summary of expenditures made under the arrangement with JASON under paragraph (1); and

(B) a summary of the studies and other activities carried out by JASON pursuant to such arrangement in the preceding calendar year.

10 USC 2358 note.

SEC. 223. DIRECT AIR CAPTURE AND BLUE CARBON REMOVAL TECHNOLOGY PROGRAM.

(a) PROGRAM REQUIRED.—

Coordination.

- (1) IN GENERAL.—The Secretary of Defense, in coordination with the Secretary of Homeland Security, the Secretary of Energy, and the heads of such other Federal agencies as the Secretary of Defense considers appropriate, shall carry out a program on research, development, testing, evaluation, study, and demonstration of technologies related to blue carbon capture and direct air capture.
- (2) PROGRAM GOALS.—The goals of the program established under paragraph (1) are as follows:
 - (A) To develop technologies that capture carbon dioxide from seawater and the air to turn such carbon dioxide into clean fuels to enhance fuel and energy security.
 - (B) To develop and demonstrate technologies that capture carbon dioxide from seawater and the air to reuse such carbon dioxide to create products for military uses.
 - (C) To develop direct air capture technologies for use—

 (i) at military installations or facilities of the

Department of Defense; or

- (ii) in modes of transportation by the Navy or the Coast Guard.
- $(3) \ \ P{\rm HASES.} The \ program \ established \ under \ paragraph \\ (1) \ shall \ be \ carried \ out \ in \ two \ phases \ as \ follows:$
 - (A) The first phase shall consist of research and development and shall be carried out as described in subsection (b).
 - (B) The second phase shall consist of testing and evaluation and shall be carried out as described in subsection (c), if the Secretary determines that the results of the research and development phase justify implementing the testing and evaluation phase.
- (4) DESIGNATION.—The program established under paragraph (1) shall be known as the "Direct Air Capture and Blue Carbon Removal Technology Program" (in this section referred to as the "Program").
- (b) RESEARCH AND DEVELOPMENT PHASE.—
- (1) IN GENERAL.—During the research and development phase of the Program, the Secretary of Defense shall conduct research and development in pursuit of the goals set forth in subsection (a)(2).
- (2) DIRECT AIR CAPTURE.—The research and development phase of the Program may include, with respect to direct air capture, a front end engineering and design study that includes an evaluation of direct air capture designs to produce fuel for use—
 - (A) at military installations or facilities of the Department of Defense; or

Evaluation. Determination.

Study. Evaluation.