



United States Government Accountability Office
Washington, DC 20548

August 1, 2012

The Honorable Adam Smith
Ranking Member
Committee on Armed Services
House of Representatives

The Honorable Roscoe G. Bartlett
Chairman
The Honorable Silvestre Reyes
Ranking Member
Subcommittee on Tactical Air and Land Forces
Committee on Armed Services
House of Representatives

Subject: Counter-Improvised Explosive Devices: Multiple DOD Organizations are
Developing Numerous Initiatives

Improvised explosive devices (IEDs) are the enemy's weapon of choice (e.g., 16,500 IEDs were detonated or discovered being used against U.S. forces in Afghanistan in 2011) and, according to the Department of Defense (DOD) will probably be a mainstay in any present and future conflict given their low cost to develop coupled with their potential for strategic impact. Multiple DOD components,¹ including the military services, have been pursuing counter-IED (C-IED) efforts leading up to June 2005 when DOD established the Joint IED Defeat Task Force followed in 2006 with the establishment of the Joint IED Defeat Organization (JIEDDO) to lead and coordinate all DOD actions to defeat IEDs. From fiscal years 2006 through 2011, JIEDDO has received over \$18 billion in funding;² however, DOD has funded other C-IED efforts outside of JIEDDO, including \$40 billion for Mine Resistant Ambush Protected vehicles.

We reported in February 2012 that DOD does not have full visibility over all of its C-IED efforts.³ DOD relies on various sources and systems for managing its C-IED efforts, but has not developed a process that provides DOD with a comprehensive listing of its C-IED

¹ Other federal agencies are involved with C-IED efforts, including the Departments of Homeland Security, Justice, State, and Agriculture.

² This total represents appropriations and rescissions made to the Joint Improvised Explosive Device Defeat Fund for JIEDDO. The appropriation provisions often specify that the Secretary of Defense may transfer funds to other appropriations categories after notifying the congressional defense committees. See, e.g., Department of Defense and Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10, div. A, tit. IV (2011).

³ GAO, *Warfighter Support: DOD Needs Strategic Outcome-Related Goals and Visibility over Its Counter-IED Efforts*, [GAO-12-280](#) (Washington, D.C.: Feb. 22, 2012); GAO, *2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue*, [GAO-12-342SP](#), (Washington, D.C.: Feb. 28, 2012).

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initiatives and activities. In response to our recommendation that the Secretary of Defense direct JIEDDO to develop an implementation plan for the establishment of DOD's C-IED database including a detailed timeline with milestones to help achieve this goal, DOD officials said that a revision of DOD's Directive 2000.19E⁴ will contain a new task requiring combatant commands, the military services, and DOD agencies to report C-IED initiatives to JIEDDO. This would include programming and funding pursued by a military service, combatant command, or other DOD component, in addition to activities funded by JIEDDO. In January 2012, DOD estimated it would complete draft revisions to DOD Directive 2000.19E in early 2012, but as of July 2012, Office of the Secretary of Defense (OSD) officials stated that the revised draft was under review at the OSD level, and therefore, not issued. In addition, according to JIEDDO officials, DOD is conducting an ongoing review of C-IED capabilities across the Department that may affect JIEDDO and the contents of the draft directive.

This report responds to your request asking us to examine the potential for overlap and duplication in DOD's C-IED efforts. Because DOD lacks a comprehensive database of C-IED initiatives, we conducted a department-wide survey to determine (1) the number of different C-IED initiatives and the organizations developing them from fiscal year 2008 through the closing date of our survey, January 6, 2012, and the extent to which DOD is funding these initiatives, and (2) the extent and nature of any overlap that could lead to duplication of C-IED efforts. In July 2012, we briefed committee staff on the results of our survey and analysis. Enclosure 1 provides briefing slides detailing the results of our work.

Scope and Methodology

To answer the objectives of this report, we used a two-phased survey approach. We administered a preliminary survey to identify potential C-IED initiatives, followed by a more detailed survey to obtain more specific information on the identified initiatives. We administered the preliminary survey to identify potential C-IED initiatives. We determined who should receive this survey by extracting contact information from (1) a DOD database of C-IED technologies under development, (2) a DOD-sponsored C-IED conference attendee list, and (3) other sources. The preliminary survey also asked survey recipients to identify other individuals and organizations outside their own that conduct C-IED initiatives. We then followed with a more detailed survey to obtain more specific information on the identified C-IED initiatives. We allowed survey recipients to respond from August 2011 to January 2012, and during those 5 months, followed up with those who had not responded in order to increase the number of surveys returned to the greatest extent possible during the survey period. The information that both surveys provided was sufficient for our analyses.

To determine the number of different C-IED initiatives and the extent different organizations used DOD funding for developing C-IED initiatives, we used the preliminary survey and

⁴ Department of Defense Directive 2000.19E, Joint Improvised Explosive Device Defeat Organization (JIEDDO) (Feb. 14, 2006).

JIEDDO financial data to compile a list of potential initiatives managed by organizations outside of JIEDDO that, in DOD officials' opinion, met the definition we developed for C-IED initiatives, which follows.⁵

Any operational, materiel, technology, training, information, intelligence, or research and development project, program, or other effort funded by any component of the Department of Defense that is intended to assist or support efforts to counter, combat, or defeat the use of improvised explosive devices and related networks. This includes IED precursors [e.g., raw materials], such as chemicals or associated components such as command wires [e.g., triggering wire].

In addition to the survey, we contacted DOD officials involved in C-IED management to further identify the number of C-IED initiatives that DOD funded and conducted and organizations involved with developing C-IED initiatives and followed up with associated DOD officials to further identify any other organizations the survey may have missed. We also aggregated the funding data reported by respondents from the detailed survey for the C-IED initiatives we identified to provide a measure of magnitude of resources expended.

To determine the extent and nature of any overlap that could lead to potential duplication of C-IED initiatives, our detailed survey contained questions about the type and nature of the initiative, technology-focus of the initiative, funding associated with it, the organizational placement of the initiative, and degree of communication with JIEDDO and other DOD organizations regarding each of the potential initiatives identified in the preliminary survey.⁶ From the survey results, we divided the total number of potential C-IED initiatives into two subsets—those with survey responses and those without survey responses. We also separated survey responses that contained classified information from those that did not and, after determining that 81 percent of the responses were unclassified, focused our analysis on the data from the unclassified survey responses. With those unclassified responses, we identified C-IED initiatives concentrated within similar areas of development, which resulted in our grouping initiatives into 9 broad categories, such as detection or training efforts, and 20 examples of associated subcategories, such as chemical sensors, a subcategory under the detect category. The development of these categories and subcategories was based on follow-up discussions we had with the DOD officials who manage these C-IED initiatives.

We conducted this performance audit from November 2011 to August 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Appendix I of the enclosed briefing contains additional details of our scope and methodology.

⁵ We developed this definition relying in part on a provision in the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 that defines a C-IED initiative as "any project, program, or research activity funded by any component of the Department of Defense that is intended to assist or support efforts to counter, combat, or defeat the use of improvised explosive devices." See Pub. L. No. 111-383, § 124(c) (2011) (10 U.S.C. § 113 note). We augmented this description based on comments from DOD officials during survey expert review and pre testing.

⁶ As defined in [GAO 12-342SP](#), "Overlap" occurs when programs have similar goals, devise similar activities and strategies to achieve them, or target similar users. "Duplication" occurs when two or more agencies or programs are engaged in the same activities or provide the same services to the same beneficiaries.

Summary

We identified 1,340 potential, separate initiatives that DOD funded from fiscal year 2008 through the first quarter of fiscal year 2012 that, in DOD officials' opinion, met the above definition for C-IED initiatives. We relied on our survey, in part, to determine this number because DOD has not determined, and does not have a ready means for determining, the universe of C-IED initiatives. Of the 1,340 initiatives, we received detailed survey responses confirming that 711 initiatives met our C-IED definition. Of the remaining 629 initiatives for which we did not receive survey responses, 481 were JIEDDO initiatives. JIEDDO officials attribute their low survey returns for reasons including that C-IED initiatives are currently not fully identified, catalogued, and retrievable; however, they expect updates to their information technology system will correct this deficiency. Our survey also identified 45 different organizations that DOD is funding to undertake these 1,340 identified initiatives. Some of these organizations receive JIEDDO funding while others receive other DOD funding. We documented \$4.8 billion of DOD funds expended in fiscal year 2011 in support of C-IED initiatives, but this amount is understated because we did not receive survey data confirming DOD funding for all initiatives. As an example, at least 94 of the 711 responses did not include funding amounts for associated C-IED initiatives. Further, the DOD agency with the greatest number of C-IED initiatives identified—JIEDDO—did not return surveys for 81 percent of its initiatives.

Our survey results showed that multiple C-IED initiatives were concentrated within some areas of development, resulting in overlap within DOD for these efforts—i.e., programs engaged in similar activities to achieve similar goals or target similar beneficiaries. For example, our survey data identified 19 organizations with 107 initiatives being developed to combat cell phone-triggered IEDs. While the concentration of initiatives in itself does not constitute duplication, this concentration taken together with the high number of different DOD organizations that are undertaking these initiatives and JIEDDO's inability to identify and compare C-IED initiatives, demonstrates overlap and the potential for duplication of effort. According to JIEDDO officials, the organization has a robust coordinating process in place that precludes unintended overlap. However, through our survey and follow-up with relevant agency officials, we found examples of overlap in the following areas: (1) *IED-related intelligence analysis*: two organizations were producing and disseminating similar IED-related intelligence products to the warfighter, (2) *C-IED hardware development*: two organizations were developing similar robotics for detecting IEDs from a safe distance, and (3) *IED detection*: two organizations had developed C-IED initiatives using chemical sensors that were similar in their technologies and capabilities.

Our survey results showed that a majority of respondents said they communicated with JIEDDO regarding their C-IED initiatives; however, JIEDDO does not consistently record and track this data. Based on our prior work, JIEDDO does not have a mechanism for recording data communicated on C-IED efforts. Therefore, these data are not available for analysis by JIEDDO or others in DOD to reduce the risk of duplicating efforts and avoid repeating mistakes.

Concluding Observations

As we previously reported, and as our survey results confirmed, DOD has funded hundreds of C-IED initiatives but has not yet developed a comprehensive database of these initiatives and the organizations conducting them. DOD plans to provide JIEDDO access to department-wide C-IED data to enable the identification and development of a

comprehensive C-IED initiatives database, but it had not done so as of July 2012. Further, our survey identified high concentrations of initiatives falling under several key C-IED areas of development. This condition, coupled with DOD's lack of knowledge regarding its prior and current C-IED investments, demonstrates the potential for overlap and duplication and re-emphasizes the findings in our prior work. DOD concurred with our February 2012 recommendation to develop an implementation plan and timeline for establishing a C-IED database.⁷ Therefore, we are not making additional recommendations in this report.

Agency Comments and Our Evaluation

We provided a draft of this report to DOD. In its written comments reproduced in enclosure 2, DOD listed the actions it is taking to implement prior GAO recommendations to develop a C-IED database. However, DOD disagreed with several details contained in our findings. DOD also provided technical comments that we incorporated as appropriate.

DOD stated that we portrayed JIEDDO as uncooperative in responding to our survey and that JIEDDO provided GAO access to its records for all inactive C-IED efforts for the survey sample. It was not our intent to imply that JIEDDO was uncooperative; rather it was to fully disclose limitations in the data we collected and the reasons for those limitations. However, the limitations we cited with regard to JIEDDO's survey responses underscore our previous findings that JIEDDO does not have comprehensive visibility over its own or DOD-wide counter-IED efforts. Moreover, DOD's comments overstate the degree and utility of the access it provided. For example, although DOD provided us with access to JIEDDO's enterprise management system, this system was of limited utility because identifying and extracting the relevant, reliable information needed from the system files would require the expertise of a knowledgeable JIEDDO program manager (as stated in our scope and methodology appendix at the end of our briefing slides). The limited utility of its enterprise management system for purposes of completing the survey is corroborated by discussions with JIEDDO officials regarding their efforts to complete our survey. Officials stated that completing the survey for JIEDDO's inactive initiatives would be too time consuming because those staff familiar with these initiatives no longer worked at JIEDDO and therefore completing the surveys would require a manual effort to locate and review relevant files for the information needed to complete the survey since they could not retrieve the necessary information through JIEDDO's enterprise system.

DOD stated that our comment that JIEDDO is unable to distinguish expenditures is incorrect because JIEDDO uses its financial management database to reliably identify C-IED initiative costs, and its financial management data provides the ability to identify all JIEDDO's initiatives and staff and infrastructure costs. However, DOD's comments do not accurately reflect our findings. Specifically, we stated that JIEDDO is unable to comprehensively and automatically distinguish individual C-IED initiatives from other expenditures, including JIEDDO's infrastructure and overhead costs such as facilities, contractor services, pay and benefits, and travel. Although we agree that JIEDDO can use its financial management database to help identify individual initiative costs, JIEDDO's financial management database does not automatically distinguish between costs for C-IED initiatives and those for staff and infrastructure costs, which would not be considered counter-IED initiatives. To do so would require JIEDDO to review the listing JIEDDO's financial management database produces to manually identify and remove efforts that it does not consider C-IED initiatives per either its definition or our definition.

⁷ [GAO-12-280](#).

DOD stated that the examples of overlap we cited in our report are overstated, noting that the figure [on page 17 of our briefing] showing 60 chemical sensor efforts by 14 organizations fails to explain that these are different sensors for different chemical signatures. However, since DOD has not developed a comprehensive database listing all of its C-IED efforts—including those involving chemical sensors—it is not clear to what degree the chemical sensors associated with the 60 efforts represented in the figure are different from one another or apply to different chemical signatures. Therefore, we continue to believe, as noted in the briefing, that the potential for duplication exists.

DOD stated that the chemical sensor example (on page 21 of our briefing) highlights two systems that use similar technologies and may appear to overlap but do not because the systems were designed for distinctly different threats and targets. Although DIA did not develop its system for purposes of countering IEDs or design its system to detect IEDs, when DIA deployed its system in theater in 2009, the system proved effective in detecting IEDs. DIA then approached JIEDDO to fund further development of DIA's system because of its new found C-IED capability. JIEDDO declined and in 2010 started developing its system using similar technology for the purpose of detecting IEDs. Therefore, we continue to believe that because both systems use similar technology and provide similar capabilities overlap exists, regardless of the intended users.

DOD stated that our example comparing two intelligence analysis entities (on page 18 of our briefing) is based on a dated report and that routine collaboration now occurs between the two entities with the two entities "deconflicting" requests for support to minimize duplication of effort. The report we cite in our slides was dated January 2011, and we updated our information by discussing the issue with OSD, Army, and JIEDDO officials as recently as March 2012 to corroborate the continued validity of the January 2011 report finding that there was overlap between the two entities. Further, we cannot evaluate the effectiveness of the specific efforts cited in DOD's comments because DOD did not provide evidence of their implementation or effectiveness. We continue to support our position that DOD improve collaboration, identify and address overlapping efforts, and minimize duplication.

DOD stated that the Senior Integration Group, established by the Secretary of Defense, ensures collaboration related to joint urgent needs DOD-wide and will reduce potential overlap of C-IED initiatives across DOD. We agree that senior level attention can be effective in prioritizing efforts, directing actions and resolving issues associated with joint urgent needs; however, the ability of the Senior Integration Group to comprehensively review DOD's counter-IED efforts to identify and address overlap and duplication is limited. For example, without a DOD-wide data base of counter-IED efforts, the group would not have adequate visibility to comprehensively identify overlapping efforts. Further, the scope of the Senior Integration Group is to oversee all joint urgent operational needs, which is much broader than counter-IED. As such, with the approximately 1,300 C-IED efforts we identified in addition to the universe of efforts that address other joint urgent operational needs, the number of efforts that the SIG can address may be limited to only those of the highest priority.

In its comments to our report, DOD also requested that we provide a listing of the efforts and associated contacts for C-IED initiatives conducted outside of JIEDDO so that they may be reviewed for inclusion in JIEDDO's forthcoming database. We will cooperate to the extent possible as JIEDDO takes this action to establish a database of counter-IED efforts.

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We are sending copies of this report to the appropriate congressional committees, the Secretary of Defense, and the Director of JIEDDO. The report also is available at no charge on the GAO website at <http://www.gao.gov>. Should you or your staff have any questions on the matters discussed in this report, please contact me at (202) 512-5431, or russellc@gao.gov. Contact points for our offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who contributed to this report are listed in enclosure 3.

A handwritten signature in black ink, reading "Cary Russell". The signature is fluid and cursive, with the first name "Cary" and last name "Russell" clearly distinguishable.

Cary B. Russell
Acting Director, Defense Capabilities and Management

Enclosures-3

Briefing for Congressional Requesters



Counter-Improvised Explosive Devices: Multiple DOD Organizations Are Developing Numerous Initiatives

**Briefing for Congressional Requesters
July 2012**



Background

- Improvised explosive devices (IEDs) are the enemy's weapon of choice (e.g., 16,500 IEDs were detonated or discovered being used against U.S. forces in Afghanistan in 2011), and according to the Department of Defense (DOD) probably will be a mainstay in any present and future conflict involving insurgents, terrorists, or criminal gangs. For example, according to DOD, the widespread availability and low cost of IED materials and the potential for strategic impact guarantee that the IED will remain a threat and the main casualty-producing weapon for decades to come.
- Multiple DOD components, including the military services, have been pursuing counter-IED (C-IED) efforts since June 2005, when DOD established the Joint IED Defeat Task Force for which the Army provided primary administrative support. This task force replaced the Army IED Task Force, the Joint IED Task Force, and the Under Secretary of Defense, Force Protection Working Group.
- In 2006, DOD issued Directive 2000.19E,¹ which designated the Joint Improvised Explosive Device Defeat Organization (JIEDDO) as DOD's lead entity to focus all DOD actions in support of the combatant commanders' and their joint task forces' efforts to defeat IEDs as weapons of strategic influence.
- From fiscal years 2006 through 2011, JIEDDO received more than \$18 billion in funding;² however, DOD has funded other C-IED efforts conducted outside of JIEDDO including \$40 billion for Mine Resistant Ambush Protected vehicles.

¹ Department of Defense Directive 2000.19E, Joint Improvised Explosive Device Defeat Organization (JIEDDO) (Feb. 14, 2006).

² This total represents appropriations and rescissions made to the Joint Improvised Explosive Device Defeat Fund for JIEDDO. The appropriation provisions often specify that the Secretary of Defense may transfer funds to other appropriations categories after notifying the congressional defense committees. See, e.g., Department of Defense and Full-Year Continuing Appropriations Act, 2011, Pub. L. No. 112-10, div. A, tit. IV (2011).



Background, Cont'd.

- We reported in October 2009 that many organizations involved in addressing the IED threat continued to develop, maintain, and expand their own IED defeat capabilities after the creation of JIEDDO.³
- DOD does not have a ready means for determining the universe of its C-IED initiatives. We reported in February 2012 that DOD does not have full visibility over all of its C-IED efforts. It relies on various sources and systems for managing its C-IED efforts, but has not developed a process that provides the department with a comprehensive listing of its C-IED initiatives and activities.⁴
- In response to our recommendation that the Secretary of Defense direct JIEDDO to develop an implementation plan for the establishment of DOD's C-IED database including a detailed timeline with milestones to help achieve this goal, DOD officials said that a draft revision of DOD Directive 2000.19E will contain a new task requiring combatant commands, the military services, and DOD agencies to report C-IED initiatives to JIEDDO to enable JIEDDO to have visibility of all C-IED initiatives, programming, and funding pursued individually by a Service, combatant command, or DOD agencies.
- In January 2012, DOD estimated that it would complete draft revisions to DOD Directive 2000.19E in early 2012, but as of July 2012, Office of the Secretary of Defense (OSD) officials stated that the revised draft was under review at the OSD level and therefore not issued. In addition, according to JIEDDO officials, DOD is conducting an ongoing review of C-IED capabilities across the Department, which according to JIEDDO, may affect JIEDDO and the contents of the draft directive.

³GAO, *Warfighter Support: Actions Needed to Improve Visibility and Coordination of DOD's Counter-Improvised Explosive Device Efforts*, GAO 10-95 (Washington D.C.: Oct. 29, 2009).

⁴GAO, *Warfighter Support: DOD Needs Strategic Outcome-Related Goals and Visibility Over Its Counter-IED Efforts*, GAO-12-280 (Washington D.C.: February 17, 2012), and *Opportunities to Reduce Duplication, Overlap, and Fragmentation, Achieve Savings, and Enhance Revenue*, GAO-12-342SP (Washington D.C.: February 28, 2012).



Objectives

This work is based on a request from the House Armed Services Committee-- Subcommittee on Tactical Air and Land Forces, asking GAO to report on the potential for overlap and duplication in DOD's C-IED efforts. In response, we conducted a departmentwide survey to determine

1. the number of different C-IED initiatives and the organizations developing them from fiscal year 2008 through January 6, 2012, the closing date of our survey, and the extent to which DOD is funding these initiatives, and
2. the extent and nature of any overlap that could lead to duplication of C-IED efforts.



Scope and Methodology

To answer these objectives, we used a two-phased survey approach. We administered a preliminary survey to identify potential C-IED initiatives, followed by a more detailed survey to obtain more specific information on the identified initiatives. We sent the preliminary and detailed surveys to representatives of all potential C-IED initiatives we could identify. However, because there may be C-IED initiatives that we did not become aware of, the results of the surveys cannot be generalized to all DOD-funded C-IED efforts.

- To determine the number of different C-IED initiatives and the extent different organizations used DOD funding for developing these initiatives, we used the preliminary survey and JIEDDO financial data to
 - Identify the number of potential C-IED initiatives that JIEDDO funded and conducted that met the following definition we developed for C-IED initiatives:⁵
Any operational, materiel, technology, training, information, intelligence, or research and development project, program, or other effort funded by any component of the Department of Defense that is intended to assist or support efforts to counter, combat, or defeat the use of improvised explosive devices and related networks. This includes IED precursors [e.g., raw materials] such as chemicals or associated components such as command wires [e.g., triggering wire].
 - Compile a list of potential initiatives managed by organizations outside of JIEDDO that, in DOD officials' opinion, met this definition.
 - Identify other organizations involved with developing C-IED initiatives and followed up with associated DOD officials to further identify any other organizations the survey may have missed.

⁵ We developed this definition relying in part on a provision in the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 that defines a C-IED initiative as "any project, program, or research activity funded by any component of the Department of Defense that is intended to assist or support efforts to counter, combat, or defeat the use of improvised explosive devices." See Pub. L. No. 111-383, 124(c) (2011) (10 U.S.C. 113 note). We augmented this description based on comments from DOD officials during survey expert review and pre testing.



Scope and Methodology, Cont'd.

- To provide a measure of magnitude of resources expended, we also aggregated the funding data reported by respondents from the detailed survey for the C-IED initiatives we identified.
- To determine the extent and nature of any overlap that could lead to potential duplication of C-IED initiatives,⁶ we
 - Sent out a detailed survey with questions about the type and nature of the initiative, technology focus of the initiative, funding associated with it, the organizational placement of the initiative, and degree of communication with JIEDDO and other DOD organizations regarding each of the potential initiatives identified in the preliminary survey.
 - Requested survey recipients respond within a 2-week period. However, we allowed recipients a total of 5 months to respond and followed up with recipients who had not responded in order to increase the number of surveys returned to the greatest extent possible during the survey period. Despite these efforts, some survey recipients did not respond.
 - Divided the total number of potential C-IED initiatives we identified into two subsets—those with survey responses and those without survey responses.

⁶As we previously reported in GAO 12-342SP, "Overlap" occurs when programs have similar goals, devise similar activities and strategies to achieve them, or target similar users. "Duplication" occurs when two or more agencies or programs are engaged in the same activities or provide the same services to the same beneficiaries.



Scope and Methodology, Cont'd.

- Separated detailed survey responses that contained classified information from those that did not, and after determining that 81 percent of the responses were unclassified, we focused our analysis and presentation of summary survey data on unclassified survey responses.
- Identified C-IED initiatives concentrated within similar areas of development, which resulted in our grouping initiatives into 9 comprehensive categories, such as detection or training efforts, and 20 examples of associated subcategories, such as chemical sensors, a subcategory under the detect category. The development of these categories and subcategories was based on follow-up discussions we had with the DOD officials who manage these C-IED initiatives (See appendix 1 for a more detailed Scope and Methodology).⁷

⁷Through our data collection and analysis procedures, we attempted to ensure that all initiatives we analyzed were unique. However, multiple organizations working on different aspects of the same initiative may use different titles for their portion of an initiative and may have submitted survey responses for just their portion of an initiative. Therefore while we believe all survey responses describe unique activities, it is possible that the total number of initiatives we report include some of the same activities.



Objective 1: Summary

- **Number of DOD-Funded C-IED Initiatives:** We identified 1,340 potential separate initiatives that DOD funded from fiscal year 2008 through January 6, 2012, the closing date of our survey and that, in DOD officials' opinion, met the definition for C-IED initiatives. Of the 1,340 initiatives, we received survey responses confirming 711 initiatives that met the above C-IED definition. Of the remaining 629 initiatives for which we did not receive survey responses, 76 percent were JIEDDO initiatives.
- **Organizations Undertaking DOD-Funded C-IED Initiatives:** We also identified 45 different organizations that DOD is funding to undertake the initiatives above [see the list of organizations on slide 12]. Some of these organizations receive JIEDDO funding while others receive other DOD funding.
- **DOD Funding for C-IED Initiatives:** Funding data for DOD-funded C-IED initiatives are limited. We documented \$4.8 billion of DOD fiscal year 2011 funding in support of C-IED initiatives, but this amount is understated because we did not receive survey data confirming DOD funding for all initiatives. As an example, 94 of the 711 responses did not include funding amounts for associated C-IED initiatives. Further, the DOD agency with the greatest number of C-IED initiatives identified—JIEDDO—did not return surveys for 81 percent of its initiatives.



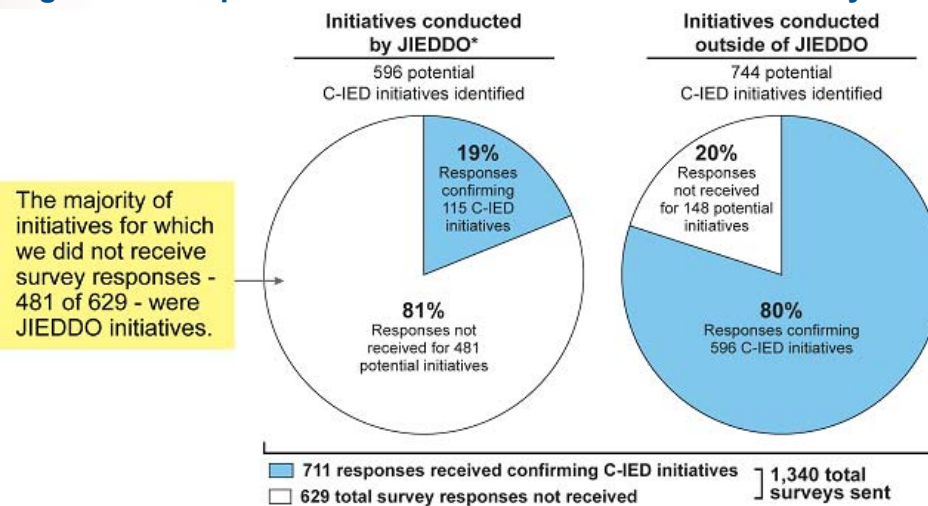
Objective 1: Number of DOD-Funded C-IED Initiatives

- Our survey and database analyses identified 1,340 separate potential initiatives that DOD funded from fiscal years 2008 through January 6, 2012, and, in DOD officials' opinion, met the above definition for C-IED initiatives.
 - DOD designated JIEDDO as DOD's joint organization to coordinate its C-IED initiatives. However, JIEDDO does not have comprehensive knowledge of all of DOD's C-IED initiatives because it and DOD do not have a ready means for determining the universe of C-IED initiatives. Further, according to JIEDDO, its governing directive to coordinate the overall C-IED efforts—DOD Directive 2000.19E—does not give it sufficient authority to (1) compel the military services to report their C-IED activity or (2) direct or limit their C-IED activities. Of the 1,340 potential C-IED initiatives,
 - 596 C-IED initiatives are conducted by JIEDDO.
 - 744 C-IED initiatives are not conducted by JIEDDO.
 - The following figure compares the number of initiatives managed within and outside of JIEDDO. It also shows the percentage of survey responses received.

Objective 1: Number of DOD-Funded C-IED Initiatives, Cont'd.

Of the 1,340 potential C-IED initiatives that we identified, the following figure compares the number of initiatives managed within and outside of JIEDDO and a breakdown of responses received.

Figure 1: Comparison of JIEDDO and non-JIEDDO Survey Responses



Source: GAO analysis.

*Initiatives determined as JIEDDO-conducted were identified through their financial database.

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Objective 1: Number of DOD-Funded C-IED Initiatives, Cont'd.

- JIEDDO provided survey responses for 19 percent of the potential JIEDDO initiatives we identified, which was low compared to all other organizations' survey responses.
 - The following are reasons JIEDDO gave regarding its low number of survey returns:
 - Historic records for C-IED initiatives are not fully identified, catalogued, and retrievable. However, according to JIEDDO officials, the organization is updating its information technology system and expects that it will provide a capability to rapidly generate responses with minimal impact to daily operation.
 - Significant turnover of personnel has resulted in a loss of staff expertise and institutional knowledge.
 - JIEDDO's concern that applying its resources to complete the remaining surveys would
 - detract from the time needed to perform its day-to-day mission priority of fielding capabilities to minimize and eventually eliminate the IED threat, and
 - require 2,400 personnel man hours which JIEDDO considered too high a cost.
 - As stated in our prior reports (listed at the end of this briefing), JIEDDO is unable to comprehensively and automatically distinguish individual C-IED initiatives from other expenditures, including JIEDDO's infrastructure and overhead costs such as facilities, contractor services, pay and benefits, and travel.



Objective 1: Number of DOD-Funded C-IED Initiatives, Cont'd.

Table 1: Organizations Undertaking DOD-funded C-IED Initiatives

• Our survey identified 45 organizations undertaking DOD-funded C-IED initiatives, which we grouped below by major component.⁸

DOD or joint military organization

- Assistant Secretary of Defense (Research and Engineering), Office of Defense Biometrics
- Combating Terrorism Technical Support Office
- Defense Advanced Research Projects Agency
- Defense Intelligence Agency
- Defense Threat Reduction Agency (Operations Enterprise)
- Joint Knowledge Online
- Joint Staff
- National Assessment Group
- National Geospatial Intelligence Agency
- National Security Agency
- OSD Comparative Technology Office
- OSD Rapid Fielding Office
- OSD Rapid Reaction Technology Office
- OSD Test Resource Management Center
- Secretary of Defense Intelligence, Surveillance, and Reconnaissance Task Force

Combatant Command

- US Special Operations Command
- US European Command
- US Central Command

OSD: Office of the Secretary of Defense

Army

- Army Engineer Research and Development Center
- Army Forces Command
- Army Intelligence and Security Command
- Army Research, Development and Engineering Command
- Army Support Activity Fort Dix
- Army Training and Doctrine Command
- Asia-Pacific Counter Improvised Explosive Device Fusion Center
- Headquarters, Department of Army
- Office of the Assistant Secretary of the Army (Acquisition, Logistics and Technology)
- Project Manager DoD Biometrics
- US Army Evaluation Center, US Army Test and Evaluation Command
- 224th Military Intelligence Battalion

Marine Corps

- Marine Corps Systems Command
- Marine Corps Training and Education Command
- Program Manager Engineer Systems, Marine Corps Systems Command

Navy

- Chief of Naval Operations (N2/N6F12)
- Naval Air Systems Command
- Naval Sea Systems Command
- Navy Expeditionary Combat Command
- Office of Naval Research
- Space and Naval Warfare Systems Center Pacific

Non-DOD

- Oak Ridge National Laboratory (Department of Energy)

JIEDDO

- Joint Improvised Explosive Device Defeat Organization

Air Force

- 421 Combat Training Squadron
- Air Force Materiel Command Electronic Systems Center
- Air Force Research Laboratory
- Air Force Directorate of Weather, Headquarters US Air Force

⁸Organizations may receive funding from JIEDDO, other DOD sources, or a combination of the two.



Objective 1: DOD Funding for C-IED Initiatives

- Table 2 aggregates survey data of any DOD funding expended in FY 2011 reported by the 45 organizations shown in table 1—and is summarized by major component in descending order of total funding. However, funding data for DOD-funded C-IED initiatives are limited for the following reasons:
 - We did not receive survey data confirming DOD funding for all initiatives. Specifically, 94 of the 711 initiatives, for which we received responses in the second survey, did not include funding amounts for associated C-IED initiatives.
 - Further, JIEDDO—the DOD agency with the greatest number of C-IED initiatives identified—did not return surveys for 81 percent of its initiatives. Consequently, its survey responses may understate funds expended.

Table 2: Survey Data-Funds Reported as Expended in FY 2011 on Initiatives Summarized by Major Component

Component	Amount (millions) ⁹
JIEDDO	\$1,320.77
Army	1,110.09
Navy	1,089.52
DOD or joint military organization other than JIEDDO	1,021.24
Marine Corps	231.95
Air Force	22.83
Combatant Command	30.00
Non-DOD Organization	0.86
Total	\$4,827.26

⁹ Through our data collection and analysis procedures, we attempted to ensure that all initiatives we analyzed were unique. However, multiple organizations working on different aspects of the same initiative may use different titles for their portion of an initiative and may have submitted survey responses for just their portion of an initiative. Therefore while we believe all survey responses describe unique activities, it is possible that the total number of initiatives we report include some of the same activities. Therefore, in these cases, the dollar amounts in this table for major components other than JIEDDO may include funds provided by JIEDDO.



Objective 2: Summary

- **Multiple DOD-funded C-IED Initiatives Were Concentrated in Some Areas of Development:** Our survey results showed that multiple C-IED initiatives were concentrated within some areas of development. These concentrations of initiatives overlap as they share the same goal of protecting the warfighter and defeating IEDs through the use of similar technologies or capabilities. Further, given that DOD is not fully aware of the number and types of its C-IED initiatives or the organizations conducting its C-IED initiatives and that multiple initiatives are concentrated in some areas, there may be duplication of effort in C-IED initiatives—i.e., two or more initiatives are providing the same services to the same beneficiaries. The following are examples of overlap we identified through our survey and follow-up with relevant agency officials:
 - **Intelligence Analysis:** In the area of IED-related intelligence analysis, we determined that several organizations have ongoing C-IED initiatives involving the production and dissemination of IED-related intelligence. Further, we identified an example involving potential overlap between JIEDDO and Army C-IED network intelligence analysis.
 - **Robotic Devices:** In the area of counter-IED hardware development efforts, we determined that at least four organizations conduct initiatives developing robotic devices for detection of IEDs from a safe standoff distance for soldiers and explosive ordnance disposal specialists. Through follow-up discussions with DOD officials regarding these robotic efforts, we identified a specific example in which the Army and Navy separately developed robotic systems which illustrates overlap in DOD robotics efforts and confirms a continued risk of duplication in DOD's C-IED initiatives.
 - **Sensor Collection Systems:** In the area of IED-detection development efforts, we determined that two organizations are conducting C-IED initiatives using chemical sensors. In analyzing these initiatives involved in the development of sensor collection systems for use in C-IED initiatives, we identified a specific example—two sensor systems developed by the Defense Intelligence Agency and JIEDDO that were similar in their technologies and capabilities—confirming and illustrating potential overlap in this category of C-IED efforts.
- **JIEDDO Does Not Consistently Collect and Track C-IED Data It Receives from DOD Organizations :** While survey results showed that a majority of respondents said that they communicated with JIEDDO with respect to their individual C-IED efforts, JIEDDO does not consistently collect and track this information. Therefore, these data are not available for analysis to JIEDDO or others in DOD to reduce the risk of duplicating efforts and avoid repeating mistakes.



Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development

Our survey data for the 577 initiatives for which we received unclassified survey responses show high concentrations of DOD-funded C-IED initiatives in some areas of development. For example, survey data identified 19 organizations with 107 initiatives being developed to combat cell phone-triggered IEDs. While the concentration of initiatives in itself does not constitute duplication, this concentration taken together with the following factors demonstrates overlap and the potential presence of duplication in DOD-funded C-IED initiatives:

- The high number of different DOD organizations that are undertaking these initiatives.
- The universe of DOD-funded C-IED initiatives that remain unidentified as of June 2012.
- As a result—
 - DOD, including JIEDDO, does not know the number of C-IED initiatives that different organizations have developed using DOD funding, and cannot fully identify concentrations of C-IED initiatives that pose the greatest risk of duplication of efforts and inefficient allocation of limited resources.
 - According to JIEDDO officials, the organization has a robust coordinating process in place that precludes unintended overlap and duplication of C-IED efforts within DOD. However, various entities expending DOD funding on C-IED initiatives cannot be fully aware of the number and types of DOD-funded C-IED initiatives outside their own organizations without reliable, comprehensive data identifying the universe of C-IED initiatives at DOD.

Our analysis showing concentrations of C-IED initiatives when broken into categories and subcategories is summarized in Table 3.

Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Table 3: C-IED Categories and Subcategories Showing Concentrations of Initiatives

Category	Subcategory	Total number of C-IED initiatives within a category	Total number of organizations that conducted C-IED initiatives	Number of C-IED initiatives within a subcategory ^a	Number of organizations that conducted subcategory initiatives ^b
Mitigate		42	15		
	Involving armor			19	10
	Convoy protection			25	13
Detect		253	32		
	Chemical sensors			60	14
	Spectroscopy			59	16
	IED precursors			81	20
	Low- and non-metallic content IEDs			98	20
Prevent/neutralize	Emitted megahertz radiation			44	14
		180	23		
	Cell phone triggering mechanisms			107	19
	Mechanical, ballistic, explosive, or seismic neutralization			37	7
Hardware	Pressure-plate triggered IEDs			56	15
		277	29		
	Sensors or data collection			152	21
Modelling/simulation	Developing, operating, or maintaining antenna			73	13
		166	25		
	Blast effects on equipment			19	8
Training	Computer simulation			96	22
		139	24		
	Recognizing or locating human-borne IED threats			63	15
Forensic/intelligence, surveillance, and reconnaissance	Developing ISR training			65	15
		269	32		
	Measurement and signature intelligence			38	10
	Technical intelligence			55	14
Software	Open-sources or media			37	13
		284	31		
	Image recognition software			51	15
Other		39	11		

Source: GAO analysis of survey data for 577 initiatives with unclassified responses.

^a An initiative may apply to more than one subcategory (e.g., an initiative may address convoy protection as well as armor needs) thereby exceeding the number of total initiatives for each category as a whole as some initiatives may overlap and be counted more than once.

^b Since an initiative may apply to more than one subcategory, the organization conducting these initiatives may also apply to more than one subcategory thereby being counted more than once.

^c This table is not all-inclusive of potential sub categories in our survey data.

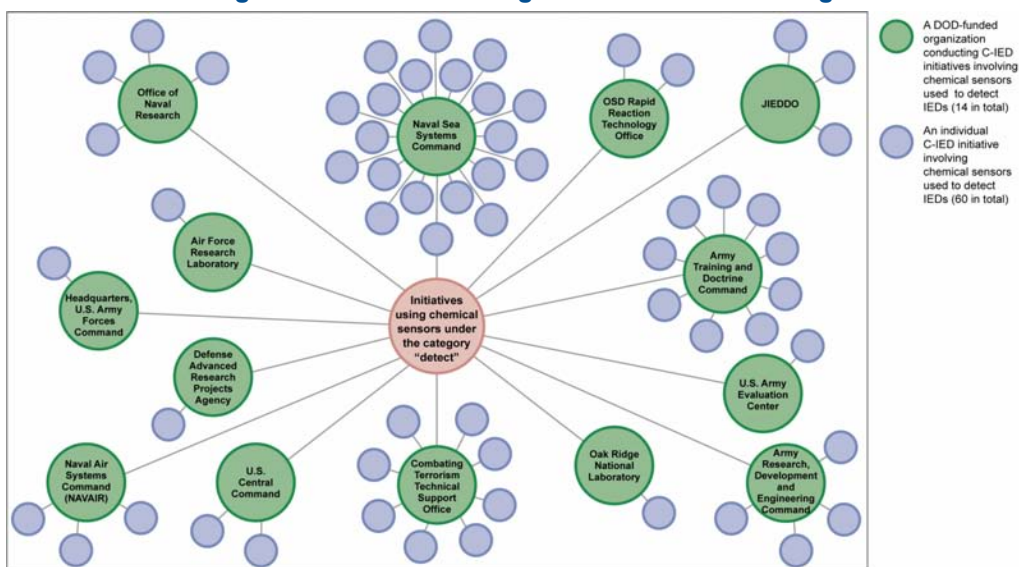
To illustrate C-IED initiatives' potential overlap, this table contains survey data arranged by:

- 9 broad categories developed based on discussions with DOD personnel who manage these C-IED efforts.
- 20 examples of subcategories containing several DOD-funded C-IED initiatives.^c

See figure 2 for illustration of the organizations and subcategory relationship data for Chemical Sensor initiatives.

Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Figure 2: Example Illustrating Organizations and Subcategory Relationship Data from Table 3 --14 Organizations Conducting 60 initiatives Involving Detection of IEDs Using Chemical Sensors



Source: GAO analysis of survey data for 577 initiatives with unclassified responses.



Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Intelligence Analysis Example

In the area of IED-related intelligence analysis, we determined through survey responses and follow-up discussions with DOD officials that several organizations have ongoing C-IED initiatives involving the production and dissemination of IED-related intelligence. Further we identified an example among these initiatives that illustrates potential overlap in DOD's intelligence analytical efforts.

- JIEDDO and other DOD entities perform intelligence analysis for the warfighter. For example, JIEDDO and the Army's National Ground Intelligence Center (NGIC) can both perform C-IED network intelligence analysis and provide intelligence reports to the warfighter that identify members, locations, and activities of an IED network. However, the extent to which Army and JIEDDO intelligence activities overlap remains unresolved. In 2011, the U.S. Army Deputy Chief of Staff for Intelligence attempted a comparison of Army and JIEDDO intelligence activities,¹⁰ but according to Army officials, JIEDDO did not provide the information the Army needed to fully complete this effort.
- JIEDDO has stated that it provides distinct intelligence analysis from other DOD intelligence entities but analysis by other DOD intelligence entities have created potential overlap. At the onset of operations in Afghanistan, NGIC provided intelligence analysis of warfighters at a strategic level addressing broader theater objectives, and as the war progressed, JIEDDO developed a distinct intelligence analytical capability to serve the unmet need of warfighters at a tactical level. However, Army intelligence analysis, including NGIC, expanded to meet tactical level warfighter intelligence analysis needs. For example, according to Army intelligence officials, in 2009, Army leaders instructed intelligence personnel in theater to adjust their emphasis to better support tactical level customers. According to these Army officials and other DOD intelligence officials, JIEDDO and NGIC compete to provide similar information to both tactical and strategic level customers.

¹⁰This effort was an attempt to achieve efficiencies directed by Secretary Gates in 2010 that could reduce potential duplication.



Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Intelligence Analysis Example, cont'd.

- A January 2011 Under Secretary of Defense for Intelligence briefing stated in its findings that there is overlap between JIEDDO's intelligence analysis activity and the Army's National Ground Intelligence Center. Therefore, the briefing recommended that after the war, JIEDDO's intelligence analytical capabilities transition to the Army's National Ground Intelligence Center. Such a consolidation should eliminate any duplication between JIEDDO and the Army's National Ground Intelligence Center. According to DOD officials, DOD has decided to separately maintain these intelligence analytical capabilities until after the war.



Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Robotics Example

In the area of hardware-related C-IED development efforts, we determined through survey responses that at least four organizations conduct initiatives developing robotic devices for detection of IEDs from a safe standoff distance for soldiers and explosive ordnance disposal specialists. Through follow-up discussions with DOD officials regarding these robotic efforts, we identified the following example that confirms and illustrates potential overlap in DOD's robotics efforts.

- Two organizations are developing robotics devices with similar technologies and capabilities. According to Army and Navy officials:
 - The Army and Navy are each separately developing a family of robotic systems that share the following four characteristics:
 - Base platforms which accommodate interchangeable tools, such as cameras, sensors, etc.
 - Small, medium, and large versions of these base platforms which address varying portability needs.
 - Open designs which allow upgrades, modifications, and new tools to be added as missions evolve.
 - Purchase of technical data to allow competitive procurement during their systems' life-cycles, as needed.
 - The purposes of these systems differ in one critical dimension. To satisfy explosive ordnance handling needs, the Navy robotic system requires tools to handle or detonate explosive devices, while the Army robotic system does not need to have such tools.
 - This requirement may not be sufficient to justify development of two families of robotic systems because with adaptable base platforms either system could be used as the base for the tools needed by explosive ordnance technicians to handle or detonate explosive devices.
- According to DOD officials, the Joint Ground Robotics Enterprise is an organization that provides oversight of consolidation of DOD ground robotic efforts, but it does not have the ability to direct individual services and organizations developing robotics within DOD to consolidate overlapping efforts. Also, the President's fiscal year 2013 budget request does not include funds for this organization's operations for next fiscal year.

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Objective 2: Multiple DOD-funded C-IED Initiatives Concentrated in Some Areas of Development, Cont'd.

Sensor Collection Systems Example:

In the area of C-IED efforts involving the detection of IEDs, we determined that multiple organizations are conducting initiatives using chemical sensors. In analyzing these initiatives involved in the development of sensor collection systems for use in C-IED initiatives, we identified two sensor systems developed by two different organizations that are similar in their technologies and capabilities—illustrating potential overlap in this category of counter-IED efforts. In 2011, DOD decided to terminate one of these two initiatives.

- In 2007, the Defense Intelligence Agency (DIA) developed a sensor collections system initiative which DOD deployed in Afghanistan to detect IEDs in 2009.
- In 2010, JIEDDO began development of its own sensor collection system initiative with similar technology and capabilities.
- In 2011, according to a DOD official, DOD considered these two sensor collection system initiatives in its assessment of sensor collection systems to identify the most effective and efficient system for DOD's continued use.
 - Because DOD lacks comprehensive data providing visibility over C-IED initiatives, DOD had to make a broad data call across the department to identify and obtain data on all of the specific sensor collection system initiatives within the department. The task force determined that there were at least four different sensor collection system initiatives with similar technologies and capabilities.
- Later in 2011 as a result of this assessment, DOD's Joint Urgent Operational Needs Senior Integration Group determined that JIEDDO's initiative would be the department's sensor collection system for use in theater, and consequently DOD discontinued DIA's initiative in October 2011.
- In June 2012, DOD began transitioning JIEDDO's initiative to the Army and, according to JIEDDO officials, it is expected to become a program of record in fiscal year 2014 or fiscal year 2015.
- Total funding for DIA's initiative was approximately \$240 million from inception until October 2011. As of May 2011, JIEDDO funding for its initiative was approximately \$181 million.



Objective 2: JIEDDO Does Not Consistently Collect and Track C-IED Data It Receives from DOD Organizations

In response to the survey question asking respondents if they communicate with JIEDDO about their particular effort, survey results showed that a majority of respondents communicated with JIEDDO. However, our prior work found that JIEDDO does not have a system that consistently records data communicated on C-IED efforts.¹¹ Therefore, these data are not available for analysis to JIEDDO or others in DOD to help reduce the risk of duplicating efforts and share best practices.

- Unclassified responses to our survey reported that for 76.6 percent (412 of 538) of initiatives outside of JIEDDO, there had been communication with JIEDDO.
- Unclassified responses to our survey reported that for 16.9 percent (91 of 538) of initiatives conducted outside of JIEDDO, there had been no communication with JIEDDO; for the remaining 6.5 percent (35 of 538) of initiatives, responses did not answer whether or not there had been communication with JIEDDO.
 - DOD has a diminished ability to use information when all organizations conducting C-IED initiatives do not communicate with JIEDDO.
 - This lack of communication with JIEDDO may increase the potential for multiple organizations to pursue overlapping efforts

¹¹GAO-12-280



Concluding Observations

As we stated in our prior work, and as our survey results confirmed, DOD has funded hundreds of C-IED initiatives but has not developed a comprehensive database of these initiatives or the organizations conducting them. While DOD plans to provide JIEDDO access to department-wide C-IED data to enable the identification and development of a comprehensive C-IED initiatives database, it had not issued new guidance to require additional reporting on initiatives as July 2012. Further, our survey identified high concentrations of initiatives falling under several key C-IED areas of development. This condition, coupled with DOD's lack of knowledge regarding its prior and current C-IED investments, demonstrates the potential for overlap and duplication. Because DOD concurred with our February 2012 recommendation to develop an implementation plan and timeline for establishing a counter-IED database, we are not making additional recommendations.



Appendix I: Scope and Methodology

- To answer the objectives of this report, we used a two-phased survey approach. A preliminary survey identified potential C-IED initiatives funded by DOD—this survey was sent in December 2010 and completed in July 2011 as part of a prior GAO engagement. The engagement resulted in issuance of GAO-12-280 (related GAO products page 29), however the report did not include preliminary survey data because the second phase of the survey was not yet completed. We sent a more detailed survey in July 2011—also as part of the same prior GAO engagement—and this survey closed in January 2012. To identify recipients to receive the preliminary survey—i.e., persons conducting potential C-IED initiatives—we extracted contact information from a DOD database of C-IED technologies under development, DOD-sponsored C-IED conference attendee lists, and other sources. The preliminary survey also asked respondents to identify other individuals and organizations outside their own that conduct C-IED initiatives.
- To determine the number of different C-IED initiatives and the extent DOD is funding different organizations to develop C-IED initiatives, we:
 - Used the preliminary survey to compile an initial list of potential initiatives managed by organizations outside of JIEDDO that, in DOD officials' opinion, met the definition we developed for C-IED initiatives:
 - *Any operational, materiel, technology, training, information, intelligence, or research and development project, program, or other effort funded by any component of the Department of Defense that is intended to assist or support efforts to counter, combat, or defeat the use of improvised explosive devices and related networks. This includes IED precursors [e.g., raw materials] such as chemicals or associated components such as command wires [e.g., triggering wire].*
 - Requested that the knowledgeable official of these identified C-IED initiatives—i.e., the persons we identified in our preliminary survey—complete and return a detailed survey (described in the methodology section below for our second objective) for the C-IED initiative(s) that met the definition.



Appendix I: Scope and Methodology, Cont'd.

- Determined that all JIEDDO efforts met our definition for C-IED initiatives and consequently identified the number of C-IED initiatives that JIEDDO funded and conducted by reviewing its data (1) for all JIEDDO activity recorded as of May 1, 2011 in its financial management system and (2) for a June 2011 JIEDDO listing that contained additional C-IED efforts begun after May 1, 2011. Based on these data sets, we developed a list of potential JIEDDO C-IED initiatives. We submitted the listing to JIEDDO for completion of surveys for each individual initiative. We also added these efforts to our list of potential C-IED initiatives identified through DOD organizations outside of JIEDDO.
- Identified organizations involved with developing C-IED initiatives funded by DOD and followed up with DOD officials of those organizations to further identify any other organizations the survey may have missed.
- Aggregated the funding data reported by respondents from the detailed survey for the C-IED initiatives we identified.
- To determine the extent and nature of any overlap that could lead to potential duplication of C-IED initiatives, we
 - Confirmed that each C-IED initiative of the total number identified met the definition of a C-IED initiative in order to send out a detailed survey to obtain further information about them.
 - Developed the detailed survey which included, among other things, requests for a narrative description of the initiative along with detailed data on the type, nature, and technology focus of the initiative, the funding associated with the initiative, and the organizational placement of the initiative. Most questions could be answered by a single check mark or a Yes/No/Don't Know response, for example,
 - "Does this effort develop, operate, or maintain systems that do any of the following detection activities, other than for training?"*
 - "Detecting IEDs or IED components such as command wires (Yes/No/Don't Know)"*
 - "Detecting IED precursors such as stockpiled chemicals before inclusion in IEDs (Yes/No/Don't Know)"*
 - Etc.*



Appendix I: Scope and Methodology, Cont'd.

- We sent the detailed survey to JIEDDO and to individuals identified through the preliminary survey. The survey was developed based on the following:
 - Discussions with DOD officials involved in C-IED management including JIEDDO, Joint Rapid Acquisition Cell (JRAC), the Military Services, and managers of individual DOD C-IED efforts;
 - Pretests of the survey with C-IED program managers and other directly knowledgeable DOD officials and revised it accordingly; and
 - Removal of C-IED initiatives. We removed C-IED initiatives from our list of potential initiatives when we (1) determined that an effort was outside of our scope—i.e., C-IED initiatives funded by DOD before 2008, (2) concluded that an effort was represented by another survey respondent or (3) concluded that the effort did not meet the C-IED initiative definition above that we developed. We made these determinations based on the responses we received from the detailed survey or from another reliable source, and discussions with knowledgeable DOD officials.
- Grouped and totaled the C-IED efforts remaining (after removing C-IED initiatives from our potential initiatives list based on the preceding reasons) into two subsets —those with survey responses and the remaining without survey responses—to separate confirmed C-IED initiatives from remaining potential C-IED initiatives, which we were unable to confirm further.
- Separated confirmed survey responses that contained classified information from those that did not and determined that the vast majority of the responses were unclassified. For purposes of reporting on this objective, our analyses and presentation of summary survey data were then confined to the data from unclassified survey responses.



Appendix I: Scope and Methodology, Cont'd.

- Attempted to extract information from JIEDDO's enterprise management system, where historic and management documentation is filed, to obtain additional information on the C-IED initiatives from unclassified responses but concluded that we did not have sufficient familiarity with the files to identify and extract the relevant, reliable information needed. We concluded that it would require the expertise of a knowledgeable JIEDDO program manager to do so.
- Used the organizational placement data collected from completed detailed surveys to list and summarize the organizations involved in C-IED initiatives within our scope of DOD-funded C-IED initiatives occurring in 2008 or later. We also analyzed the data to determine the concentration of all potential and confirmed C-IED initiatives that fell within and outside JIEDDO.
- Used the type/nature/technical nature data from completed surveys to identify concentrations in areas of development. Using 9 broad categories of C-IED initiatives we developed in the survey based on discussions with DOD officials who manage initiatives, we summarized all initiatives for survey data collected. We also developed 20 subcategories that demonstrate concentrations of C-IED initiatives at a level supporting each of the 9 broad categories. (Note: Through our data collection and analysis procedures, we attempted to ensure that all initiatives we analyzed were unique. However, multiple organizations working on different aspects of the same initiative may use different titles for their portion of an initiative and may have submitted survey responses for just their portion of an initiative. Therefore while we believe all survey responses describe unique activities, it is possible that the total number of initiatives we report include some of the same activities.)
- Used data on whether respondents communicated (by phone, e-mail, or in person) with other organizations regarding their C-IED initiative(s) to determine the degree of communication with JIEDDO for C-IED efforts conducted outside of JIEDDO.



Appendix I: Scope and Methodology, Cont'd.

- We sent the preliminary and detailed surveys to representatives of all potential C-IED initiatives we could identify. However, because there may be C-IED initiatives that we did not become aware of, the results of the surveys cannot be generalized to all DOD-funded C-IED efforts. The preliminary and detailed surveys were sent to recipients by email as MS Word form documents; recipients then filled in the documents and returned the surveys by email. The response rate for surveys sent to recipients other than JIEDDO (prior to editing survey responses) was 61.2 percent. The response rate for surveys sent to JIEDDO was 19 percent. The information that these surveys provided was sufficient for our analyses.
- We conducted this performance audit from November 2011 through August 2012 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives.



Related GAO Products

- *Combating Terrorism: State Should Enhance Its Performance Measures for Assessing Efforts in Pakistan to Counter Improvised Explosive Devices.* [GAO-12-614](#) (Washington, D.C.: May 15, 2012.)
- *Urgent Warfighter Needs: Opportunities Exist to Expedite Development and Fielding of Joint Capabilities.* [GAO-12-385](#) (Washington, D.C.: Apr 24, 2012).
- *2012 Annual Report: Opportunities to Reduce Duplication, Overlap and Fragmentation, Achieve Savings, and Enhance Revenue.* [GAO-12-342SP](#). (Washington, D.C.: Feb. 28, 2012).
- *Warfighter Support: DOD Needs Strategic Outcome-Related Goals and Visibility Over Its Counter-IED Efforts.* [GAO-12-280](#) (Washington, D.C.: February 17, 2012).
- *Opportunities to Reduce Potential Duplication in Government Programs, Save Tax Dollars, and Enhance Revenue.* [GAO-11-318SP](#) (Washington, D.C.: March 1, 2011).
- *Warfighter Support: DOD's Urgent Needs Processes Need a More Comprehensive Approach and Evaluation for Potential Consolidation.* [GAO-11-273](#) (Washington, D.C.: Mar 1, 2011).
- *Warfighter Support: Actions Needed to Improve the Joint Improvised Explosive Device Defeat Organization's System of Internal Control.* [GAO 10-660](#) (Washington, D.C.: Jul. 1, 2010).
- *Warfighter Support: Improvements to DOD's Urgent Needs Processes Would Enhance Oversight and Expedite Efforts to Meet Critical Warfighter Needs.* [GAO-10-460](#) (Washington, D.C.: Apr. 30, 2010).
- *Unmanned Aircraft Systems: Comprehensive Planning and a Results-Oriented Training Strategy Are Needed to Support Growing Inventories.* [GAO-10-331](#) (Washington, D.C.: Mar. 26, 2010).
- *Warfighter Support: Challenges Confronting DOD's Ability to Coordinate and Oversee Its Counter-Improvised Explosive Devices Efforts.* [GAO-10-186T](#) (Washington, D.C.: Oct. 29, 2009).
- *Warfighter Support: Actions Needed to Improve Visibility and Coordination of DOD's Counter-Improvised Explosive Device Efforts.* [GAO 10-95](#) (Washington, D.C.: Oct. 29, 2009).

Comments from the Department of Defense



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Mr. Cary Russell
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Dear Mr. Russell:

This is the Department of Defense (DoD) response to the GAO draft report, GAO-12-861R, "COUNTER-IMPROVISED EXPLOSIVE DEVICES: Multiple DoD Organizations are Developing Numerous Initiatives," dated July 13, 2012 (GAO Code 351665).

As the report states, DoD concurred with the prior GAO recommendation to establish a Counter-Improvised Explosives Device (C-IED) data base. JIEDDO is partnering with the Office of the Assistant Secretary of Defense (Research & Engineering) (OASD(R&E)) to establish a comprehensive inventory of DoD counter-IED capabilities. JIEDDO and OASD(R&E) are drafting an implementation plan to formally establish this counter-IED capabilities database. The DoD Directive that established JIEDDO, *DODD 2000.19e, Joint Improvised Explosive Device Defeat Organization, February 2006*, is under revision and scheduled for update. The revised DODD 2000.19e will enable JIEDDO to implement the C-IED capabilities database.

The survey conducted by GAO provides an opportunity to analyze the domain of CIED efforts within DoD. Request that GAO provide DoD a listing of the 744 identified efforts not conducted by JIEDDO and the points of contact associated with each effort so that they may be reviewed for inclusion in the capabilities database.

The briefing gives the impression that JIEDDO did not support the survey effort. This is inaccurate. JIEDDO provided GAO an unprecedented level of unrestricted access to our key information systems. In June 2011, GAO Auditors were provided user access to JIEDDO's financial and C-IED initiative databases. The majority of the information used by GAO to develop the domain of 1,340 CIED efforts was derived from data provided by JIEDDO. JIEDDO completed surveys on all active C-IED efforts. GAO had access to JIEDDO's records for all the inactive C-IED efforts in the survey sample.

The comment that JIEDDO is unable to distinguish expenditures is incorrect. As noted in prior responses to GAO, JIEDDO uses the Comprehensive Cost and Requirements (CCaR) database to reliably identify C-IED initiatives costs. The CCaR database provides

the ability to identify all of JIEDDO's initiatives and staff and infrastructure costs. All Joint Improvised Explosive Device Defeat Funds (JIEDDF) executed (committed/ obligated/ disbursed) by JIEDDO are accounted for within CCAr.

The examples of overlap cited by GAO are overstated. The figure showing 60 chemical sensor efforts by 14 DoD elements fails to explain that these are different sensors for different chemical signatures. This distinction highlights the complexity and technical challenges of the C-IED fight. JIEDDO's role is to identify and rapidly develop or deploy those efforts which will support the urgent needs of the Warfighter. Basic research and longer term development of systems to counter-IEDs is required across DoD.

The Chemical Sensor example highlights two systems that were developed along similar technologies which may appear to overlap but do not. The systems were designed for distinctly different threats and targets.

The Intelligence-Analysis example that compared the JIEDDO C-IED Information Operations/Integration Center (COIC) and the Army National Ground Intelligence Center (NGIC) is based on a dated report. The JIEDDO COIC routinely collaborates with NGIC on analytic production. The organizations have exchanged LNOs and deconflict requests for support to minimize duplication of effort. Each organization leverages the strengths of the other in support of their analysis to increase efficiency of effort to support the Warfighter.

The Secretary of Defense established the Senior Integration Group (SIG) and appointed JIEDDO's Director as the Secretariat of this group. The SIG is DoD's single authority to prioritize solutions that can be fielded quickly and to direct actions and resolve issues associated with joint urgent needs. As such, the SIG ensures collaboration which will reduce potential overlap of C-IED initiatives across the DoD.

Comments on technical or factual corrections to the report were provided in a separate document to the GAO audit team. The point of contact for this response is Mr. William Rigby, JIEDDO Internal Review, william.rigby@jieddo.mil, 703-602-4807.

Sincerely,


MICHAEL D. BARBERO
Lieutenant General, USA
Director

Enclosure III

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In addition to the contact named above, key contributors to this report were Grace Coleman, Rajiv D'Cruz, Guy LoFaro, Emily Norman, Michael Shaughnessy, Rebecca Shea, Michael Silver, Amie Steele, John David Strong, and Tristan T.To.

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