



DEPARTMENT OF THE ARMY  
UNITED STATES ARMY CENTRAL  
CAMP ARIFJAN, KUWAIT  
APO AE 09306

REPLY TO  
ATTENTION OF

ACOP-AV

20 August 2015

MEMORANDUM FOR Commanding General, United States Army Central, Camp Arifjan,  
Kuwait, APO AE 09306

SUBJECT: ~~(S//REL TO USA, MEST)~~ Informal AR 15-6 Investigation Findings and  
Recommendations for the Al Hawijah ISIL VBIED Factory strike, 02 June 2015

1. ~~(S//REL TO USA, MEST)~~ Purpose. On 21 July 2015, BGen Kevin J. Killea appointed me an  
investigating officer (IO) pursuant to AR 15-6 to conduct an informal investigation into the facts  
and circumstances surrounding the authorization of a kinetic engagement conducted against a  
VBIED (vehicle-borne improvised explosive device) factory in Al Hawijah, Iraq on 02 June  
2015. After careful review of all available evidence, I find that it is probable that the attack  
resulted in civilian casualties but that the engagement was properly conducted under the Laws of  
Armed Conflict and the applicable Rules of Engagement.

2. ~~(S//REL TO USA, IRKS)~~ Background. On 02 2103Z June 2015, (b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g  
(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g conducted a deliberate strike against the "Al Hawijah  
ISIL VBIED Factory" (b)(1)1.4c in Al Hawijah, Iraq. (b)(1)1.4a, (b)(1)1.4g

(b)(1)1.4a, (b)(1)1.4g  
(b)(1)1.4a, (b)(1)1.4g The bombs triggered a large secondary explosion that caused  
damage to structures beyond the facility outline.<sup>2</sup> Post-strike assessments indicate that in the  
area surrounding the blast, 111 buildings were confirmed destroyed, 75 buildings sustained  
severe damage, 86 buildings sustained moderate damage, and 160 buildings sustained light  
damage. Additionally, in a residential area located approximately 500 feet north of the target  
area 25 buildings were confirmed destroyed, 52 buildings sustained severe damage, 68 buildings  
sustained moderate damage, and 103 buildings sustained light damage.<sup>3</sup>

3. (U) Facts. The following sub-paragraphs chronologically detail facts derived from  
information collected throughout the duration of this investigation.

a. ~~(S//REL)~~ The Al Hawijah ISIL VBIED Factory was nominated as a target based on

(b)(1)1.4a, (b)(1)1.4c

VBIED factory. Four (b)(1)1.4a, (b)(1)1.4c reports variously identified the facility as an ISIL IED and

<sup>1</sup> Exhibit 1 - Target Pack 0427RS4475\_RT001  
<sup>2</sup> Exhibit 2 - Strike 2 June 15 VBIED Factory Impact Video  
<sup>3</sup> Exhibit 3 - OIR Daily BDA Update, 05 June 2015

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VBIED factory and weapons cache.

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g Additionally, JIEDDO determined that the physical characteristics of the facility, such as its warehouse buildings with drive-through access, indicated that the facility is used for VBIED production.<sup>4</sup>

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

(4) ~~(S//REL)~~ Central Intelligence Agency (CIA) – Concur with Comments. Confirmed likely ISIL affiliation based on four HUMINT sources, but noted the potential for collateral damage based on the adjacent residential neighborhood.

c. ~~(S//REL TO USA, IRKS)~~ On 28 May 2015 the target went to the Target Development Working Group (TDWG) and was approved for further development.<sup>6</sup>

d. ~~(S//REL TO USA, IRKS)~~ On 29 1500C May 2015 the ~~(b)(1)1.4c~~ AL HAWIJAH ISIL VBIED FACTORY ~~(b)(1)1.4c~~ (IZ) CJTF” target was briefed for validation at the Joint Targeting Coordination Board (JTCB) by the Combined Joint Task Force – Operation INHERENT RESOLVE (CJTF-OIR) CJ2T (Intelligence Targeting directorate).<sup>7</sup> The target was validated for subsequent briefing at the next Joint Targeting Approval Board (JTAB).

e. ~~(S//REL USA, FVEY)~~ On 29 1800C May 2015 the “AL HAWIJAH ISIL VBIED

<sup>4</sup> Exhibit 4 - Hawijah Intel Source Document

<sup>5</sup> Exhibit 5 - Intel Community Vetting Document

<sup>6</sup> Exhibit 6 - TDWG, 28 MAY 15, ~~(b)(1)1.4c~~ HAWIJAH VBIED FACTORY ~~(b)(1)1.4c~~

<sup>7</sup> Exhibit 7 - JTCB, 29 MAY HAWIJAH IED

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FACTORY ~~(b)(1)1.4dZ~~ target was briefed to the Commander, CJTF-OIR for strike approval in the Joint Target Approval Board.<sup>8</sup> The Commander, CJTF-OIR approved the target and directed that it proceed as a "Paper" Joint Integrated Prioritized Target List (JIPTL) for expedited strike.<sup>9</sup> As a result, on 30 May 2015 CJTF-OIR requested the addition of the Al Hawijah ISIL VBIED factory target (b)(1)1.4a

(b)(1)1.4a

f. ~~(S//REL TO USA, IRKS)~~ The Target Pack produced by the Combined Air Operations Center (CAOC) included both United States Air Force Central (USAFCENT) and USCENTCOM analysis of the target (b)(1)1.4a

(b)(1)1.4a The target was classified as "Not Dual-Use," meaning it did not serve both a both a military and civilian purpose or function. (b)(1)1.4a

(b)(1)1.4a

g. ~~(S//REL TO USA, IRKS)~~ On 31 May 2015, the paper JIPTL for the target was approved by the Deputy Commander, Combined Forces Air Component Command (DCFACC) at the CAOC and forwarded to the CJTF-OIR Deputy Commander-Air (DCOM-A). He approved it the same day for strike on 02 June 2015.<sup>12</sup> The Hawijah target was subsequently added to the 31 May 15 CJTF-OIR daily Fragmentary Order (FRAGORD).<sup>13</sup>

h. ~~(S//REL TO USA, IRKS)~~ On 01 1400Z JUN 15 the strike package mass brief was presented to the CAOC representatives (b)(1)1.4a Specifically briefed was the JDPI sort by aircraft and type of munition.<sup>14</sup>

i. ~~(S//REL TO USA, IRKS)~~ The target was briefed at the 01 June 2015 CJTF-OIR Fires and Effects Synchronization Board (b)(1)1.4a, (b)(1)1.4g

j. ~~(S//REL TO USA, MESF)~~ On 02 0946Z JUN 15 the AFCENT CAOC Battle Director sent the 5Ws for Hawijah mission success to the USAFCENT Commanding General.<sup>16</sup>

k. ~~(S//REL TO USA, IRKS)~~ At the 05 June 2015 OIR Daily Battle Damage Assessment (BDA) Update, USCENTCOM briefed that the target was confirmed destroyed but also that there was "confirmed collateral damage." Post-strike assessments from 03 June 2015 indicated

<sup>8</sup> Exhibit 8 - JTAB, 29 MAY 15

<sup>9</sup> Exhibit 9 - Email - More Hawijah questions, (b)(1)1.4a, 10 U.S.C. 130b, (b)(6)

<sup>10</sup> Exhibit 10 - Email - (b)(1)1.4a Paper JIPTL Nomination

<sup>11</sup> Exhibit 1 - Target Pack (b)(1)1.4c

<sup>12</sup> Exhibit 10 - Email - (b)(1)1.4a Paper JIPTL Nomination

<sup>13</sup> Exhibit 11 - CJTF\_OIR\_31\_MAY\_15\_DAILY\_FRAGO

<sup>14</sup> Exhibit 12 - Iraq Strike Package (b)(1)1.4a Mass Brief

<sup>15</sup> Exhibit 13 - 01 Jun Fires and Effects Synch Board

<sup>16</sup> Exhibit 14 - 5Ws CFACC Deliberate Strike Package #1 - (b)(1)1.4a 02 JUN 2015

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that in the area surrounding the target 111 buildings were confirmed destroyed, 75 buildings sustained severe damage, 86 buildings sustained moderate damage, 160 buildings sustained light damage, and 9 buildings had no damage.<sup>17</sup> The BDA also showed that in a residential area located approximately 500 feet north of the target 25 buildings were confirmed destroyed, 52 buildings sustained severe damage, 68 buildings sustained moderate damage, and 103 buildings sustained light damage.<sup>18</sup>

4. (U) Findings. The sub-paragraphs below answer the questions per the "Scope of the Investigation" in the appointment orders.

a. (~~S//REL TO USA, IRKS~~) *Who authorized the engagement?* The "AL HAWIJAH ISIL VBIED FACTORY (b)(1)4dZ" target engagement was authorized by the Commander, CJTF-OIR in the Joint Targeting Approval Board on 29 1800C May 2015.

b. (U) *Was the engagement properly conducted under the Laws of Armed Conflict, to include military necessity and proportionality?* Yes.

(1) (~~S//REL TO USA, IRKS~~) *Military Necessity.* The strike against the Al Hawijah ISIL VBIED Factory was conducted in accordance with the principle of military necessity. According to the Laws of Armed Conflict, "military necessity includes two elements: (1) a military requirement to undertake a certain measure, (2) not forbidden by the laws of war."<sup>19</sup> The body of intelligence collected on the Al Hawijah ISIL VBIED Factory showed its purpose and use as an active ISIL VBIED and IED factory and weapons cache, which made it a lawful military target per the Rules of Engagement.<sup>20</sup> The military requirement was determined by the assessment that its destruction would "moderately degrade ISIL ability to produce VBIEDs supporting offensive operations within the TRV [Tigris River Valley]."<sup>21</sup> The target was also not forbidden by the laws of war: it was not characterized as a "sensitive target" or a "No-strike entity," it was not a dual-use facility, (b)(1)1.4a

(b)(1)1.4a

(2) (~~S//REL TO USA, FVEY~~) *Proportionality.* The strike against the Al Hawijah ISIL VBIED Factory was conducted in accordance with the principle of proportionality. This principle is violated when an attack "may be expected to cause incidental loss of civilian life, injury to civilians, damage to civilian objects, or a combination thereof, which would be excessive in relation to the concrete and direct military advantage anticipated."<sup>23</sup> While the Al

<sup>17</sup> Exhibit 3 - OIR Daily BDA Update, 05 June 2015

<sup>18</sup> Exhibit 15 - CAOC CIVCAS Credibility Inquiry 2 June 2015

<sup>19</sup> Law Of Armed Conflict Deskbook, 2014, page 134

<sup>20</sup> USCENTCOM 160755Z APR 15 Rules Of Engagement (ROE) Authorization Serial Three, para. 3.A.

<sup>21</sup> Exhibit 7 - JTCB, 29 MAY HAWIJAH IED

<sup>22</sup> CJCSI 3160.01, 12 October 2012, "No-Strike and the Collateral Damage Estimation Methodology"; Exhibit 16 -

(b)(1)1.4a PAPER JIPTL

<sup>23</sup> Law Of Armed Conflict Deskbook, 2014, page 147

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Hawijah ISIL VBIED Factory was located in a populated area and, (b)(1)1.4a  
 (b)(1)1.4a I believe the evidence shows that proper target development and weaponing were conducted for this target.<sup>24</sup> (b)(1)1.4a, (b)(1)1.4g  
 (b)(1)1.4a, (b)(1)1.4g

the collateral damage methodology (CDM) used in target development does not account for secondary explosions. The Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 3160.01A, *No-Strike and the Collateral Damage Estimation Methodology*, states that “collateral damage due to secondary explosions (i.e., weapons cache or fuel tanks for military equipment) cannot be consistently measured or predicted. Commanders should remain cognizant of any additional risk due to secondary explosions.”<sup>27</sup> The evidence shows that this risk was understood from the target development briefings and mitigated through the procedural measures in accordance with the applicable regulations. The evidence also shows that the extraordinary high-order secondary explosion was exceptional even for attacks against VBIED and IED facilities. Battle damage assessments of thirteen other recent VBIED and IED facilities from before and after the Al Hawijah attack show no collateral damage that would give precedent to anticipating devastating secondary effects.<sup>28</sup> The preponderance of the evidence shows that the attack was proportional and not “expected to cause” any civilian casualties or collateral damage.

c. (~~S//REL TO USA, MEST~~) Was the engagement conducted under current authorities and the Rules of Engagement as outlined in CJTF-OIR, OPOD 15-001, DTG 160245Z DEC 14, including its Annexes and Appendices? Yes. Per the CJTF-OIR Rules of Engagement, ISIL “is declared hostile and may be attacked in Iraq and in Syria... This includes those facilities and equipment” associated with ISIL.<sup>29</sup>

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

<sup>24</sup> USCENTCOM 160755Z APR 15 Rules Of Engagement (ROE) Authorization Serial Three, para. 2C

<sup>25</sup> Exhibit 17 - Email- Al Hawijah (b)(1)1.4a, (b)(1)1.4b, (b)(1)1.4c, (b)(1)1.4d, (b)(1)1.4e, (b)(1)1.4f, (b)(1)1.4g, (b)(1)1.4h, (b)(1)1.4i, (b)(1)1.4j, (b)(1)1.4k, (b)(1)1.4l, (b)(1)1.4m, (b)(1)1.4n, (b)(1)1.4o, (b)(1)1.4p, (b)(1)1.4q, (b)(1)1.4r, (b)(1)1.4s, (b)(1)1.4t, (b)(1)1.4u, (b)(1)1.4v, (b)(1)1.4w, (b)(1)1.4x, (b)(1)1.4y, (b)(1)1.4z, (b)(1)1.4aa, (b)(1)1.4ab, (b)(1)1.4ac, (b)(1)1.4ad, (b)(1)1.4ae, (b)(1)1.4af, (b)(1)1.4ag, (b)(1)1.4ah, (b)(1)1.4ai, (b)(1)1.4aj, (b)(1)1.4ak, (b)(1)1.4al, (b)(1)1.4am, (b)(1)1.4an, (b)(1)1.4ao, (b)(1)1.4ap, (b)(1)1.4aq, (b)(1)1.4ar, (b)(1)1.4as, (b)(1)1.4at, (b)(1)1.4au, (b)(1)1.4av, (b)(1)1.4aw, (b)(1)1.4ax, (b)(1)1.4ay, (b)(1)1.4az, (b)(1)1.4ba, (b)(1)1.4bb, (b)(1)1.4bc, (b)(1)1.4bd, (b)(1)1.4be, (b)(1)1.4bf, (b)(1)1.4bg, (b)(1)1.4bh, (b)(1)1.4bi, (b)(1)1.4bj, (b)(1)1.4bk, (b)(1)1.4bl, (b)(1)1.4bm, (b)(1)1.4bn, (b)(1)1.4bo, (b)(1)1.4bp, (b)(1)1.4bq, (b)(1)1.4br, (b)(1)1.4bs, (b)(1)1.4bt, (b)(1)1.4bu, (b)(1)1.4bv, (b)(1)1.4bw, (b)(1)1.4bx, (b)(1)1.4by, (b)(1)1.4bz, (b)(1)1.4ca, (b)(1)1.4cb, (b)(1)1.4cc, (b)(1)1.4cd, (b)(1)1.4ce, (b)(1)1.4cf, (b)(1)1.4cg, (b)(1)1.4ch, (b)(1)1.4ci, (b)(1)1.4cj, (b)(1)1.4ck, (b)(1)1.4cl, (b)(1)1.4cm, (b)(1)1.4cn, (b)(1)1.4co, (b)(1)1.4cp, (b)(1)1.4cq, (b)(1)1.4cr, (b)(1)1.4cs, (b)(1)1.4ct, (b)(1)1.4cu, (b)(1)1.4cv, (b)(1)1.4cw, (b)(1)1.4cx, (b)(1)1.4cy, (b)(1)1.4cz, (b)(1)1.4da, (b)(1)1.4db, (b)(1)1.4dc, (b)(1)1.4dd, (b)(1)1.4de, (b)(1)1.4df, (b)(1)1.4dg, (b)(1)1.4dh, (b)(1)1.4di, (b)(1)1.4dj, (b)(1)1.4dk, (b)(1)1.4dl, (b)(1)1.4dm, (b)(1)1.4dn, (b)(1)1.4do, (b)(1)1.4dp, (b)(1)1.4dq, (b)(1)1.4dr, (b)(1)1.4ds, (b)(1)1.4dt, (b)(1)1.4du, (b)(1)1.4dv, (b)(1)1.4dw, (b)(1)1.4dx, (b)(1)1.4dy, (b)(1)1.4dz, (b)(1)1.4ea, (b)(1)1.4eb, (b)(1)1.4ec, (b)(1)1.4ed, (b)(1)1.4ee, (b)(1)1.4ef, (b)(1)1.4eg, (b)(1)1.4eh, (b)(1)1.4ei, (b)(1)1.4ej, (b)(1)1.4ek, (b)(1)1.4el, (b)(1)1.4em, (b)(1)1.4en, (b)(1)1.4eo, (b)(1)1.4ep, (b)(1)1.4eq, (b)(1)1.4er, (b)(1)1.4es, (b)(1)1.4et, (b)(1)1.4eu, (b)(1)1.4ev, (b)(1)1.4ew, (b)(1)1.4ex, (b)(1)1.4ey, (b)(1)1.4ez, (b)(1)1.4fa, (b)(1)1.4fb, (b)(1)1.4fc, (b)(1)1.4fd, (b)(1)1.4fe, (b)(1)1.4ff, (b)(1)1.4fg, (b)(1)1.4fh, (b)(1)1.4fi, (b)(1)1.4fj, (b)(1)1.4fk, (b)(1)1.4fl, (b)(1)1.4fm, (b)(1)1.4fn, (b)(1)1.4fo, (b)(1)1.4fp, (b)(1)1.4fq, (b)(1)1.4fr, (b)(1)1.4fs, (b)(1)1.4ft, (b)(1)1.4fu, (b)(1)1.4fv, (b)(1)1.4fw, (b)(1)1.4fx, (b)(1)1.4fy, (b)(1)1.4fz, (b)(1)1.4ga, (b)(1)1.4gb, (b)(1)1.4gc, (b)(1)1.4gd, (b)(1)1.4ge, (b)(1)1.4gf, (b)(1)1.4gg, (b)(1)1.4gh, (b)(1)1.4gi, (b)(1)1.4gj, (b)(1)1.4gk, (b)(1)1.4gl, (b)(1)1.4gm, (b)(1)1.4gn, (b)(1)1.4go, (b)(1)1.4gp, (b)(1)1.4gq, (b)(1)1.4gr, (b)(1)1.4gs, (b)(1)1.4gt, (b)(1)1.4gu, (b)(1)1.4gv, (b)(1)1.4gw, (b)(1)1.4gx, (b)(1)1.4gy, (b)(1)1.4gz, (b)(1)1.4ha, (b)(1)1.4hb, (b)(1)1.4hc, (b)(1)1.4hd, (b)(1)1.4he, (b)(1)1.4hf, (b)(1)1.4hg, (b)(1)1.4hh, (b)(1)1.4hi, (b)(1)1.4hj, (b)(1)1.4hk, (b)(1)1.4hl, (b)(1)1.4hm, (b)(1)1.4hn, (b)(1)1.4ho, (b)(1)1.4hp, (b)(1)1.4hq, (b)(1)1.4hr, (b)(1)1.4hs, (b)(1)1.4ht, (b)(1)1.4hu, (b)(1)1.4hv, (b)(1)1.4hw, (b)(1)1.4hx, (b)(1)1.4hy, (b)(1)1.4hz, (b)(1)1.4ia, (b)(1)1.4ib, (b)(1)1.4ic, (b)(1)1.4id, (b)(1)1.4ie, (b)(1)1.4if, (b)(1)1.4ig, (b)(1)1.4ih, (b)(1)1.4ii, (b)(1)1.4ij, (b)(1)1.4ik, (b)(1)1.4il, (b)(1)1.4im, (b)(1)1.4in, (b)(1)1.4io, (b)(1)1.4ip, (b)(1)1.4iq, (b)(1)1.4ir, (b)(1)1.4is, (b)(1)1.4it, (b)(1)1.4iu, (b)(1)1.4iv, (b)(1)1.4iw, (b)(1)1.4ix, (b)(1)1.4iy, (b)(1)1.4iz, (b)(1)1.4ja, (b)(1)1.4jb, (b)(1)1.4jc, (b)(1)1.4jd, (b)(1)1.4je, (b)(1)1.4jf, (b)(1)1.4jg, (b)(1)1.4jh, (b)(1)1.4ji, (b)(1)1.4jj, (b)(1)1.4jk, (b)(1)1.4jl, (b)(1)1.4jm, (b)(1)1.4jn, (b)(1)1.4jo, (b)(1)1.4jp, (b)(1)1.4jq, (b)(1)1.4jr, (b)(1)1.4js, (b)(1)1.4jt, (b)(1)1.4ju, (b)(1)1.4jv, (b)(1)1.4jw, (b)(1)1.4jx, (b)(1)1.4jy, (b)(1)1.4jz, (b)(1)1.4ka, (b)(1)1.4kb, (b)(1)1.4kc, (b)(1)1.4kd, (b)(1)1.4ke, (b)(1)1.4kf, (b)(1)1.4kg, (b)(1)1.4kh, (b)(1)1.4ki, (b)(1)1.4kj, (b)(1)1.4kk, (b)(1)1.4kl, (b)(1)1.4km, (b)(1)1.4kn, (b)(1)1.4ko, (b)(1)1.4kp, (b)(1)1.4kq, (b)(1)1.4kr, (b)(1)1.4ks, (b)(1)1.4kt, (b)(1)1.4ku, (b)(1)1.4kv, (b)(1)1.4kw, (b)(1)1.4kx, (b)(1)1.4ky, (b)(1)1.4kz, (b)(1)1.4la, (b)(1)1.4lb, (b)(1)1.4lc, (b)(1)1.4ld, (b)(1)1.4le, (b)(1)1.4lf, (b)(1)1.4lg, (b)(1)1.4lh, (b)(1)1.4li, (b)(1)1.4lj, (b)(1)1.4lk, (b)(1)1.4ll, (b)(1)1.4lm, (b)(1)1.4ln, (b)(1)1.4lo, (b)(1)1.4lp, (b)(1)1.4lq, (b)(1)1.4lr, (b)(1)1.4ls, (b)(1)1.4lt, (b)(1)1.4lu, (b)(1)1.4lv, (b)(1)1.4lw, (b)(1)1.4lx, (b)(1)1.4ly, (b)(1)1.4lz, (b)(1)1.4ma, (b)(1)1.4mb, (b)(1)1.4mc, (b)(1)1.4md, (b)(1)1.4me, (b)(1)1.4mf, (b)(1)1.4mg, (b)(1)1.4mh, (b)(1)1.4mi, (b)(1)1.4mj, (b)(1)1.4mk, (b)(1)1.4ml, (b)(1)1.4mm, (b)(1)1.4mn, (b)(1)1.4mo, (b)(1)1.4mp, (b)(1)1.4mq, (b)(1)1.4mr, (b)(1)1.4ms, (b)(1)1.4mt, (b)(1)1.4mu, (b)(1)1.4mv, (b)(1)1.4mw, (b)(1)1.4mx, (b)(1)1.4my, (b)(1)1.4mz, (b)(1)1.4na, (b)(1)1.4nb, (b)(1)1.4nc, (b)(1)1.4nd, (b)(1)1.4ne, (b)(1)1.4nf, (b)(1)1.4ng, (b)(1)1.4nh, (b)(1)1.4ni, (b)(1)1.4nj, (b)(1)1.4nk, (b)(1)1.4nl, (b)(1)1.4nm, (b)(1)1.4nn, (b)(1)1.4no, (b)(1)1.4np, (b)(1)1.4nq, (b)(1)1.4nr, (b)(1)1.4ns, (b)(1)1.4nt, (b)(1)1.4nu, (b)(1)1.4nv, (b)(1)1.4nw, (b)(1)1.4nx, (b)(1)1.4ny, (b)(1)1.4nz, (b)(1)1.4oa, (b)(1)1.4ob, (b)(1)1.4oc, (b)(1)1.4od, (b)(1)1.4oe, (b)(1)1.4of, (b)(1)1.4og, (b)(1)1.4oh, (b)(1)1.4oi, (b)(1)1.4oj, (b)(1)1.4ok, (b)(1)1.4ol, (b)(1)1.4om, (b)(1)1.4on, (b)(1)1.4oo, (b)(1)1.4op, (b)(1)1.4oq, (b)(1)1.4or, (b)(1)1.4os, (b)(1)1.4ot, (b)(1)1.4ou, (b)(1)1.4ov, (b)(1)1.4ow, (b)(1)1.4ox, (b)(1)1.4oy, (b)(1)1.4oz, (b)(1)1.4pa, (b)(1)1.4pb, (b)(1)1.4pc, (b)(1)1.4pd, (b)(1)1.4pe, (b)(1)1.4pf, (b)(1)1.4pg, (b)(1)1.4ph, (b)(1)1.4pi, (b)(1)1.4pj, (b)(1)1.4pk, (b)(1)1.4pl, (b)(1)1.4pm, (b)(1)1.4pn, (b)(1)1.4po, (b)(1)1.4pp, (b)(1)1.4pq, (b)(1)1.4pr, (b)(1)1.4ps, (b)(1)1.4pt, (b)(1)1.4pu, (b)(1)1.4pv, (b)(1)1.4pw, (b)(1)1.4px, (b)(1)1.4py, (b)(1)1.4pz, (b)(1)1.4qa, (b)(1)1.4qb, (b)(1)1.4qc, (b)(1)1.4qd, (b)(1)1.4qe, (b)(1)1.4qf, (b)(1)1.4qg, (b)(1)1.4qh, (b)(1)1.4qi, (b)(1)1.4qj, (b)(1)1.4qk, (b)(1)1.4ql, (b)(1)1.4qm, (b)(1)1.4qn, (b)(1)1.4qo, (b)(1)1.4qp, (b)(1)1.4qq, (b)(1)1.4qr, (b)(1)1.4qs, (b)(1)1.4qt, (b)(1)1.4qu, (b)(1)1.4qv, (b)(1)1.4qw, (b)(1)1.4qx, (b)(1)1.4qy, (b)(1)1.4qz, (b)(1)1.4ra, (b)(1)1.4rb, (b)(1)1.4rc, (b)(1)1.4rd, (b)(1)1.4re, (b)(1)1.4rf, (b)(1)1.4rg, (b)(1)1.4rh, (b)(1)1.4ri, (b)(1)1.4rj, (b)(1)1.4rk, (b)(1)1.4rl, (b)(1)1.4rm, (b)(1)1.4rn, (b)(1)1.4ro, (b)(1)1.4rp, (b)(1)1.4rq, (b)(1)1.4rr, (b)(1)1.4rs, (b)(1)1.4rt, (b)(1)1.4ru, (b)(1)1.4rv, (b)(1)1.4rw, (b)(1)1.4rx, (b)(1)1.4ry, (b)(1)1.4rz, (b)(1)1.4sa, (b)(1)1.4sb, (b)(1)1.4sc, (b)(1)1.4sd, (b)(1)1.4se, (b)(1)1.4sf, (b)(1)1.4sg, (b)(1)1.4sh, (b)(1)1.4si, (b)(1)1.4sj, (b)(1)1.4sk, (b)(1)1.4sl, (b)(1)1.4sm, (b)(1)1.4sn, (b)(1)1.4so, (b)(1)1.4sp, (b)(1)1.4sq, (b)(1)1.4sr, (b)(1)1.4ss, (b)(1)1.4st, (b)(1)1.4su, (b)(1)1.4sv, (b)(1)1.4sw, (b)(1)1.4sx, (b)(1)1.4sy, (b)(1)1.4sz, (b)(1)1.4ta, (b)(1)1.4tb, (b)(1)1.4tc, (b)(1)1.4td, (b)(1)1.4te, (b)(1)1.4tf, (b)(1)1.4tg, (b)(1)1.4th, (b)(1)1.4ti, (b)(1)1.4tj, (b)(1)1.4tk, (b)(1)1.4tl, (b)(1)1.4tm, (b)(1)1.4tn, (b)(1)1.4to, (b)(1)1.4tp, (b)(1)1.4tq, (b)(1)1.4tr, (b)(1)1.4ts, (b)(1)1.4tt, (b)(1)1.4tu, (b)(1)1.4tv, (b)(1)1.4tw, (b)(1)1.4tx, (b)(1)1.4ty, (b)(1)1.4tz, (b)(1)1.4ua, (b)(1)1.4ub, (b)(1)1.4uc, (b)(1)1.4ud, (b)(1)1.4ue, (b)(1)1.4uf, (b)(1)1.4ug, (b)(1)1.4uh, (b)(1)1.4ui, (b)(1)1.4uj, (b)(1)1.4uk, (b)(1)1.4ul, (b)(1)1.4um, (b)(1)1.4un, (b)(1)1.4uo, (b)(1)1.4up, (b)(1)1.4uq, (b)(1)1.4ur, (b)(1)1.4us, (b)(1)1.4ut, (b)(1)1.4uu, (b)(1)1.4uv, (b)(1)1.4uw, (b)(1)1.4ux, (b)(1)1.4uy, (b)(1)1.4uz, (b)(1)1.4va, (b)(1)1.4vb, (b)(1)1.4vc, (b)(1)1.4vd, (b)(1)1.4ve, (b)(1)1.4vf, (b)(1)1.4vg, (b)(1)1.4vh, (b)(1)1.4vi, (b)(1)1.4vj, (b)(1)1.4vk, (b)(1)1.4vl, (b)(1)1.4vm, (b)(1)1.4vn, (b)(1)1.4vo, (b)(1)1.4vp, (b)(1)1.4vq, (b)(1)1.4vr, (b)(1)1.4vs, (b)(1)1.4vt, (b)(1)1.4vu, (b)(1)1.4vv, (b)(1)1.4vw, (b)(1)1.4vx, (b)(1)1.4vy, (b)(1)1.4vz, (b)(1)1.4wa, (b)(1)1.4wb, (b)(1)1.4wc, (b)(1)1.4wd, (b)(1)1.4we, (b)(1)1.4wf, (b)(1)1.4wg, (b)(1)1.4wh, (b)(1)1.4wi, (b)(1)1.4wj, (b)(1)1.4wk, (b)(1)1.4wl, (b)(1)1.4wm, (b)(1)1.4wn, (b)(1)1.4wo, (b)(1)1.4wp, (b)(1)1.4wq, (b)(1)1.4wr, (b)(1)1.4ws, (b)(1)1.4wt, (b)(1)1.4wu, (b)(1)1.4wv, (b)(1)1.4ww, (b)(1)1.4wx, (b)(1)1.4wy, (b)(1)1.4wz, (b)(1)1.4xa, (b)(1)1.4xb, (b)(1)1.4xc, (b)(1)1.4xd, (b)(1)1.4xe, (b)(1)1.4xf, (b)(1)1.4xg, (b)(1)1.4xh, (b)(1)1.4xi, (b)(1)1.4xj, (b)(1)1.4xk, (b)(1)1.4xl, (b)(1)1.4xm, (b)(1)1.4xn, (b)(1)1.4xo, (b)(1)1.4xp, (b)(1)1.4xq, (b)(1)1.4xr, (b)(1)1.4xs, (b)(1)1.4xt, (b)(1)1.4xu, (b)(1)1.4xv, (b)(1)1.4xw, (b)(1)1.4xx, (b)(1)1.4xy, (b)(1)1.4xz, (b)(1)1.4ya, (b)(1)1.4yb, (b)(1)1.4yc, (b)(1)1.4yd, (b)(1)1.4ye, (b)(1)1.4yf, (b)(1)1.4yg, (b)(1)1.4yh, (b)(1)1.4yi, (b)(1)1.4yj, (b)(1)1.4yk, (b)(1)1.4yl, (b)(1)1.4ym, (b)(1)1.4yn, (b)(1)1.4yo, (b)(1)1.4yp, (b)(1)1.4yq, (b)(1)1.4yr, (b)(1)1.4ys, (b)(1)1.4yt, (b)(1)1.4yu, (b)(1)1.4yv, (b)(1)1.4yw, (b)(1)1.4yx, (b)(1)1.4yy, (b)(1)1.4yz, (b)(1)1.4za, (b)(1)1.4zb, (b)(1)1.4zc, (b)(1)1.4zd, (b)(1)1.4ze, (b)(1)1.4zf, (b)(1)1.4zg, (b)(1)1.4zh, (b)(1)1.4zi, (b)(1)1.4zj, (b)(1)1.4zk, (b)(1)1.4zl, (b)(1)1.4zm, (b)(1)1.4zn, (b)(1)1.4zo, (b)(1)1.4zp, (b)(1)1.4zq, (b)(1)1.4zr, (b)(1)1.4zs, (b)(1)1.4zt, (b)(1)1.4zu, (b)(1)1.4zv, (b)(1)1.4zw, (b)(1)1.4zx, (b)(1)1.4zy, (b)(1)1.4zz

<sup>27</sup> CJCSI 3160.01A, *No-Strike and the Collateral Damage Estimation Methodology*, 12 October 2012, pg. D-6.

<sup>28</sup> Exhibit 18 - VBIED BDA

<sup>29</sup> Appendix 9 (Rules of Engagement) To Annex C To CJTF-OIR Operation Order 15-001, para. 4.a.

ACOP-AV

SUBJECT: (~~S//REL TO USA, MEST~~) Informal AR 15-6 Investigation Findings and Recommendations for the Al Hawijah ISIL VBIED Factory strike, 02 June 2015

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

(2) (~~S//REL TO USA, IRKS~~) Target Authorization. Per the 29 May 2015 Joint Target Approval Brief, the CJTF-OIR Commanding General determined that the "loss of this facility's ability to function as a VBIED factory would moderately degrade ISIL ability to produce VBIEDs supporting offensive operations within the TRV, specifically the Bayji area."<sup>31</sup> On 31 May 2015, the paper JIPTL for the target was approved by the DCFACC at the CAOC and the CJTF-OIR DCOM-A for strike on 02 June 2015.<sup>32</sup> Finally, the target was briefed at the 01 June 2015 CJTF-OIR Fires and Effects Synchronization Board as a night strike package with one target and six JDPI.<sup>33</sup>

e. (~~S//REL TO USA, IRKS~~) *Was the basis of the authorization of the engagement reasonable given the circumstances at the time?* Yes. The preponderance of the evidence at the time of the authorization of the engagement and the attack showed that the Al Hawijah ISIL VBIED Factory was a lawful military target, (b)(1)1.4a

(b)(1)1.4a The body of intelligence collected and the physical characteristics of the target determined to a reasonably high certainty that it was used for IED and VBIED production. (b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

f. (U) *Were any USCENTCOM or CJTF-OIR policies, practices, or procedures violated by the authorization of the engagement?* No. All the evidence suggests that target nomination, development, weaponeering, and briefing were conducted in accordance USCENTCOM or CJTF-OIR policies, practices, or procedures.

g. (~~S//REL TO USA, FVEY~~) *What CJTF-OIR procedures are required to mitigate civilian casualties and collateral damage?* CJTF-OIR OPORD 15-001 directs that target development will be conducted in accordance with the Rules of Engagement, the CJCSI 3160.01A, *No-Strike and the Collateral Damage Estimation Methodology*, and the *USCENTCOM Supplement to the CJCSI 3160.01A*.<sup>36</sup> (b)(1)1.4a

(b)(1)1.4a

<sup>30</sup> Exhibit 4 - Hawijah Intel Source Document

<sup>31</sup> Exhibit 8 - JTAB, 29 MAY 15

<sup>32</sup> Exhibit 10 - Email- (b)(1)1.4a Paper JIPTL Nomination

<sup>33</sup> Exhibit 13 - 01 Jun Fires and Effects Synch Board

<sup>34</sup> Exhibit 16 (b)(1)1.4a PAPER JIPTL

<sup>35</sup> Exhibit 4 - Hawijah Intel Source Document

<sup>36</sup> Tab A (Target Development Guidance) To Appendix 4 To Annex B To CJTF-OIR OPORD 15-001

ACOP-AV

SUBJECT: (~~S//REL TO USA, MEST~~) Informal AR 15-6 Investigation Findings and Recommendations for the Al Hawijah ISIL VBIED Factory strike, 02 June 2015

(b)(1)1.4a

(b)(1)1.4a, (b)(1)1.4c, (b)(1)1.4g

h. (~~S//REL TO USA, IRKS/LIMDIS~~) *Were there civilian casualties as a result of this engagement? If so, describe the nature of the civilian casualties.* Based on the BDA of the vicinity of the target, it is probable that the attack resulted in civilian casualties. Open-source media outlets report about 70 non-combatant deaths. Analysis of the (b)(1)1.4g conducted during the CAOC civilian casualty (CIVCAS) credibility inquiry determined that “the secondary explosion produced a visible shock wave extending beyond 750 feet from the target and an explosion that extended to 400 feet from the target.”<sup>41</sup> BDA imagery analyzed by the CAOC and USCENTCOM determined that the residential area located approximately 500 feet north of the target area had 25 buildings confirmed destroyed, 52 buildings with severe damage, 68 buildings with moderate damage, and 103 buildings with light damage.<sup>42</sup> The preponderance of the evidence in this investigation agrees with the CAOC CIVCAS credibility inquiry finding that (b)(1)1.4a the sheer size of the explosion in the vicinity of civilian structures and the post-strike damage assessment in the area, it is logical to conclude that civilian casualties may have occurred due to the secondary explosions.”

i. (~~S//REL TO USA, IRKS~~) *What are your recommendations, if any, to mitigate civilian casualties based on this incident?* I believe the evidence shows that the target development process and CDM for the Al Hawijah ISIL VBIED Factory were legally and doctrinally sound.

<sup>37</sup> Appendix 9 (Rules Of Engagement) To Annex C To CJTF-OIR OPORD 15-001; CJCSI 3160.01A, *No-Strike and the Collateral Damage Estimation Methodology*, 12 October 2012, pg. D-A-1

<sup>38</sup> Deliberate Targeting Process at Combined Joint Task Force – Operation Inherent Resolve (CJTF-OIR), 13 July 2015. Also reference the exhibits described in paragraphs 3.a. to 3.i. of this memorandum.

<sup>39</sup> Exhibit 16 (b)(1)1.4a PAPER JIPTL

<sup>40</sup> Exhibit 17 - Email- Al Hawijah (b)(1)1.4a 10 U.S.C. 130b, (b)(1)1.4a Aug 15

<sup>41</sup> Exhibit 15 - CAOC CIVCAS Credibility Inquiry 2 June 2015; Exhibit 2 - Strike 2 June 15 VBIED Factory Impact Video

<sup>42</sup> Exhibit 3 - OIR Daily BDA Update, 05 June 2015

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The variable that cannot be accounted for in CDM is secondary explosions because it may not be possible to determine the type and quantity of explosives stored in VBIED or IED facilities and the explosion results "cannot be consistently measured or predicted."<sup>43</sup> Therefore, it should be reasonably assumed that an attack on these facilities will cause secondary explosions to some degree. [Redacted] (b)(1)1.4a, (b)(5)

[Redacted] (b)(1)1.4a, (b)(5)

[Redacted] (b)(1)1.4a, (b)(5)

6. (U//~~FOUO~~) The point of contact for this action is the undersigned at [Redacted] (b)(6)  
SVOIP: [Redacted] (b)(3) 10 U.S.C. 130b, (b)(6)

[Redacted] (b)(3) 10 U.S.C. 130b, (b)(6)

Investigating Officer

- 3 Encls
- 1. Appointment of Investigating Officer orders, 21 July 2015
- 2. Investigation Chronology
- 3. Index of Exhibits

<sup>43</sup> CJCSI 3160.01A, *No-Strike and the Collateral Damage Estimation Methodology*, 12 October 2012, pg. D-6  
<sup>44</sup> CJCSI 3122.06D, *Sensitive Target Approval and Review (STAR) Process*, 12 November 2013