

NOTE: The below is for informational purposes only and is still in DRAFT status. CDRLs and Attachments may be posted at a later date.

PRODUCT MANAGER COMBAT ENGINEER/MATERIAL HANDLING EQUIPMENT

TYPE II HEAVY CRANE

RFP NARRATIVES

Draft current as of:

15 JAN 2014

3 **SECTION C**

4
5 **C.1 HARDWARE DELIVERY**

6
7 **C.1.1 End Items.** The contractor shall deliver a single model Type II Heavy Crane that meets
8 all the technical requirements of the Purchase Description (PD) No. ATPD-2408, Type II Heavy
9 Crane (**Attachment 0001**). Delivery Orders will specify the quantity, delivery dates, destinations,
10 packaging requirements and paint colors.

11
12 **C.1.1.1 Basic Issue Items (BII).** The contractor shall identify and provide BII in accordance
13 with ATPD-2408 for each Heavy Crane. The contractor shall list BII by National Stock Number
14 (NSN) in a separate appendix to the operator's manual (see paragraph C.5.5.2.1). The contractor
15 shall over-pack (boxed and strapped to the vehicle) a complete set of BII with each vehicle, to
16 include the BII list. BII are those items identified as essential for an operator or crew to place the
17 Heavy Crane into initial operation to accomplish its defined purpose. These items are essential to
18 perform emergency repairs which cannot be deferred until completion of an assigned mission
19 and routine maintenance. The BII are not listed on the engineering drawings. The BII includes
20 those select common and special purpose tools, select Test Measurement Diagnostic Equipment
21 (TMDE), select spare and repair parts, Operator publications, first aid kits, and safety equipment
22 (for example fire extinguishers) authorized for the Heavy Crane. Although spare and repair parts
23 are not normally included in BII, exceptions may be made to meet the criteria above. The
24 contractor shall also include the following items as BII: Tie-down Straps, shovel, mattock with
25 handle, axe chopping, chock blocks, four-foot framing level with protective case, and hydraulic
26 slave cables. The BII list shall be delivered in accordance with Exhibit A, Contract Data
27 Requirements List **(CDRL) A001-BII**.

28
29 **C.1.1.2 Initial Service Package (ISP).** The contractor shall provide an ISP for each Heavy
30 Crane. The ISP shall consist of all service parts/items required to meet warranty service intervals
31 and perform scheduled maintenance for one year. The contractor shall mark each item with the
32 nomenclature, part number and NSN. The contractor shall over-pack (boxed and strapped to the
33 vehicle) a complete ISP, to include the ISP list, with each vehicle.

34
35 **C.1.1.3 Spare Parts Kit.** The Spare Parts Kit shall be comprised of parts that are high-demand,
36 have a production lead time of a minimum 8 months, or are mission essential. The Spare Parts
37 Kit is expected to support one vehicle for 90 calendar days of operation. The contractor shall
38 mark each item with nomenclature, part number and NSN.

39
40 **C.1.1.4 Special Tools Kit.** The contractor shall provide a Special Tools Kit that contains all
41 special tools for the Heavy Crane approved by the Government in accordance with C.5.2.4. The
42 kit shall be given a unique part number and CAGE code that lists all tools within the kit.

43
44 **C.2 DATA**

45
46 **C.2.1 Data Requirements.** The contractor shall deliver all data in English in accordance with
47 the requirements established in Exhibits A and B, Contract Data Requirements Lists (DD Form
48 1423).

49
50 **C.2.2** The contractor shall validate all documentation prior to submittal to the Government.
51 Government receipt of data deliverables does not constitute acceptance. Government acceptance
52 of data deliverables hinges on the completeness, accuracy, compatibility of submitted
53 documentation, and the applicable military standards and specifications.
54

55 **C.3 MEETINGS AND REVIEWS**

56
57 **C.3.1 General.** The contractor and Government will have meetings and reviews during this
58 contract's performance period, as outlined in C.3.2 below. Meetings are used to review progress
59 and provide guidance on technical, logistics, contractual or other issues that arise during contract
60 performance. For all meetings, the contractor will develop an agenda and coordinate it with the
61 Government no later than three calendar days prior to each meeting **CDRL A002**-Meeting
62 Agenda. When meetings are at the contractor's facility, the contractor will ensure the following
63 are available for the Government's use: required technical, logistics or other documentation
64 (including drawings, computer data bases, publications, and other data); and computer resources.
65 The contractor shall submit minutes of each meeting or review and deliver in accordance with
66 **CDRL A003**-Meeting Minutes.
67

68 **C.3.2 Meetings.** The contractor shall participate in the following meetings:
69

70 **C.3.2.1 Start-of-Work (SOW) Meeting.** Within 30 calendar days of contract award, a SOW
71 meeting will be held at TACOM and may last up to four calendar days. The contractor shall
72 present its plan to manage and develop engineering and logistics products and services to include
73 an integrated master schedule with all logistics, engineering and test events in accordance with
74 **Attachment 0002**-Integrated Master Schedule (IMS). The plan shall identify dates for all
75 program events and data deliverables. The plan and schedules will be reviewed by the
76 Government and managed by the contractor for the life of the contract. The plan and schedules
77 will be reviewed at each Program Status Review (PSR) or applicable In-Process Review (IPR);
78 the Integrated Logistics Schedule (ILS) will be reviewed at each Supportability Integrated
79 Product Team (SIPT) or applicable IPR for the life of the contract. The SOW meeting will focus
80 on reviewing the following.
81

- 82 a. Contract terms and conditions
- 83 b. Data requirements
- 84 c. Required specifications
- 85 d. Test requirements and schedules
- 86 e. Program Schedule to include all Engineering and Integrated Logistics Support (ILS) program
87 events and data deliverables
- 88 f. Logistics products and data development guidance
89

90 **C.3.2.1.1 Publications Start-of-Work (SOW) Meeting.** A Publications SOW meeting will be
91 held by the Government with the contractor as a sub-meeting of the overall contract SOW
92 meeting. The purpose of this meeting is to review publications contract requirements, establish
93 lines of communications, answer all questions, and present a publications schedule based on the
94 requirements of the program and the contract.

95
96 **C.3.2.2 Program Status Reviews (PSRs).** PSRs shall be held quarterly, beginning 90 calendar
97 days after the SOW meeting until completion of all data deliverables. The meetings will
98 encompass the contractor's production, test, quality assurance and data deliverable status. The
99 PSR shall be held at the contractor's facility.

100
101 **C.3.2.3 In-Process Reviews (IPRs).** The Government may request up to four IPRs per year at
102 the contractor's facility to review engineering and logistics issues and reach consensus for
103 resolution.

104
105 **C.3.2.4 Supportability Integrated Product Team (SIPT) meetings.** The contractor shall
106 participate in quarterly SIPT meetings. The purpose of these meetings is to cover the entire
107 Logistics Support Package development and assess the twelve elements of Integrated Logistics
108 Support (ILS) (see paragraph C.5.1). It is anticipated that these meetings will be held in
109 conjunction with the PSRs.

110
111 **C.3.2.5 Provisioning Reviews.** The contractor shall host a minimum of six ten day provisioning
112 reviews throughout the duration of the contract. Each incremental submission shall have at least
113 1,600 lines, but no more than 3,000 lines, unless approved in advance by the Government. Each
114 event will review any complete assemblies, major or minor. The Government, prior to
115 submission, will authorize deliveries of less than 1,600 lines. Each incremental submission must
116 include at least one complete additional major assembly. All submissions will be labeled initial,
117 changes, deletions or any combination of the three transactions. The Government will reject
118 provisioning data submittals found not to be in compliance with the requirements detailed in
119 **CDRL A004**-PPL/Provisioning Reviews and **A005**-EDFP. The contractor will provide the
120 following, as necessary, to support the provisioning review effort:

121
122 **C.3.2.5.1** Two hard copies of the Provisioning Parts List (PPL) in a format acceptable to
123 TACOM LMP provisioning system in 1388-2B format.

124
125 **C.3.2.5.2** Each Part List Item Sequence Number (PLISN) without an active NSN on the PPL
126 will have an accompanying hardcopy Engineering Data for Provisioning (EDFP) drawing.

127
128 **C.3.2.5.3** For the PLISNs with active NSNs hard copy Pre-Procurement Screening (PPS) will be
129 submitted that is no older than 30 calendar days.

130
131 **C.3.2.5.4** An electronic copy of the LSA-036 (via email the morning of the review).

132
133 **C.3.2.5.5** Facilities and office space including copying and data processing access.

134
135 **C.3.2.5.6** Internet access.

136
137 The contractor will provide to the Government the PPL in LSA-036 format, hard copy medium.

138
139 The contractor shall provide advanced copies of the PPL and EDFP data to each review attendee
140 per **CDRL A004**-PPL/Provisioning Reviews and **CDRL A005**-EDFP.

141
142 A production-representative Heavy Crane that has passed contractor testing shall be present at
143 each provisioning review to include any armor kits and attachments such as pile driver and clam
144 shell.

145
146 **C.3.2.6 Publications In-Process Reviews.** The contractor shall support up to four Publications
147 IPRs at the contractor's facility throughout the duration of the contract, by providing samples of
148 work accomplished to date, answering questions about publications work processes, providing
149 records of Quality Assurance (QA) reviews, and responding to Government comments regarding
150 publications processes or work samples. Additional IPRs may be conducted by video
151 teleconference (VTC) at no cost to the Government if the Government determines they are
152 necessary.

153
154 **C.3.2.7 Maintenance Analysis (MA) Review.** The contractor shall facilitate joint Government-
155 contractor maintenance reviews at the contractor's (or logistics sub-contractor's) facility to
156 review the maintenance planning and analysis results in accordance with the contract schedule.
157 The contractor shall update the MA for the life of the contract and provide it for Government
158 review if requested.

159
160 **C.3.2.8 Training In-Process Reviews (IPRs).** The Government and contractor shall hold joint
161 Training IPRs at the contractor's facility a maximum of four times per year. At each IPR, the
162 contractor shall provide a comprehensive review of the status of training development and issues
163 requiring Government intervention. The contractor shall make available at each IPR all training
164 documentation for Government review. The meetings will be held 15 calendar days after the
165 completion of approval of training outlines in accordance with **CDRL A032** –Course Outline, to
166 repeat 30 calendar days after material development.

167 168 **C.4 SYSTEM ENGINEERING**

169
170 **C.4.1 General.** The contractor shall maintain a systems engineering program to manage and
171 control the contractor's design and technical processes to ensure the Heavy Cranes delivered to
172 the Government fully satisfy the technical requirements of ATPD-2408 and this contract.

173
174 **C.4.2 Armor Design Reviews.** The contractor shall present current armor design engineering
175 issues and proposed solutions as an integral part of each PSR.

176 177 **C.4.3 System Safety**

178
179 **C.4.3.1 Safety Engineering.** The contractor shall apply the standard safety practices as
180 described in MIL-STD-882E, section 4 General Requirements and shall manage the engineering
181 design process to ensure the safety-related requirements specified in ATPD-2408 are met.

182
183 **C.4.3.2 Safety Assessment Report (SAR).** The contractor shall prepare a SAR in accordance
184 with **CDRL A006**-SAR and **Attachment 0003**-Safety Assessment Report.

185

186 **C.4.3.3 System Safety Management Program.** A system safety management program shall be
187 established and maintained by the contractor throughout the duration of the contract. The
188 contractor may use Attachment 0004-System Safety Program Guide as a reference in setting up
189 and maintaining the program, or in adapting an existing contractor program to meet the
190 Government requirements detailed in this guide.

191
192 **C.4.4 Environmental Management**

193
194 **C.4.4.1 Hazardous Materials.** The contractor shall limit use of any hazardous materials in
195 accordance with the ATPD-2408.

196
197 **C.4.4.2 Hazardous Materials Management Program (HMMP) Report.** The contractor shall
198 prepare a HMMP Report that identifies all hazardous materials required for system production
199 and sustainment, including the parts or process that requires them. This report shall be prepared
200 in accordance with CDRL A007-HMMP Report.

201
202 **C.4.5 Transportability.** The contractor shall use the interface design criteria in MIL-STD-
203 1366E, as applicable, to meet the specific Heavy Crane transportability performance requirement
204 of ATPD-2408. The contractor shall prepare a Transportability Report in accordance with
205 CDRL A008-Transportability Report.

206
207 **C.4.6 System Verification**

208
209 **C.4.6.1 First Article Testing.** First Article Test (FAT) shall consist of both a contractor portion
210 and a Government portion. FAT approval, per clauses 52.209-3 and 52.209-4, requires
211 successful completion of both contractor and Government testing. The contractor's tests and
212 inspections shall be conducted in accordance with Section 4, Table 1 of ATPD-2408, Section E,
213 and FAR clause 52.209-3. The Government's tests and inspections will be conducted in
214 accordance with Section 4, Table 1 of ATPD-2408, Section E, and FAR 52.209-4. The
215 contractor shall ship the test units from its facility to the Government test site and back at its own
216 expense. Full acceptance of FAT is subject to PCO approval.

217
218 **C.4.6.2 Contractor Responsibility For Timely Delivery of Logistics Data.** Acceptance of
219 hardware end items will not proceed until the contractor fully complies with all logistics data
220 requirements under the contract necessary to complete a full AR 700-142 Material Release. The
221 Contracting Officer has the unilateral right to extend the contract delivery schedule for
222 production units at no cost to the Government by the period of time equal to any delay in
223 delivery of logistics data or information. During this delay period, the contractor shall store all
224 Heavy Cranes produced at no additional cost to the Government.

225
226 **C.4.6.3 Failure Reporting, Analysis, and Corrective Action System (FRACAS).** The
227 contractor shall implement a closed-loop failure reporting system for FAT failures. The
228 contractor shall prepare and submit a Failure Analysis and Corrective Action Report (FACAR)
229 in accordance with CDRL A009- Failure Analysis and Corrective Action Report (FACAR) in
230 response to each Government prepared Test Incident Report (TIR) prepared during Government
231 FAT. TIRs will be documented by Government data collectors in the Army's VISION Data

232 Library System (VDLS). The contractor will be given read and write access to the VDLS. The
233 contractor shall request access to VDLS following procedures documented on the VDLS website
234 (<http://vdl.s.atc.army.mil>) within 30 calendar days of contract award. The contractor must have
235 an Army Knowledge Online (AKO) account established prior to requesting access to VDLS.
236 The contractor is responsible for regularly accessing VDLS and obtaining all TIRs released
237 under this contract. Each FACAR shall consist of a comprehensive analysis of the test incident,
238 the mode of failure, and root cause of failure, and document the corrective action proposed or
239 taken to prevent recurrence of the incident. All approved corrective actions shall be documented
240 and incorporated into the contractor's production procedures and Heavy Crane technical data
241 package, as applicable.

242 **C.4.7 Contractor Support During Government FAT**

243 **C.4.7.1 Contractor Materials for Government FAT.** The contractor shall supply all BII (see
244 paragraph C.1.1.1) and commercial Operator's and Service manuals with each vehicle delivered
245 for Government testing.
246

247 **C.4.7.2 Test Support Package (TSP) and Test Support Package (TSP) List.** The contractor
248 shall provide a TSP List to the Government in accordance with **CDRL A010**-Test Support
249 Package (TSP). The TSP List shall contain sufficient quantities of supplies (excluding fuel)
250 needed to maintain operation of Heavy Crane test vehicles for the duration of Government FAT,
251 all spares and repair parts deemed to have a high failure rate, and all special tools and TMDE
252 required to perform maintenance. The contractor shall deliver all items on the approved TSP
253 List to the Government FAT site in plastic weather-resistant containers with the First Articles.
254 The contractor shall re-supply the TSP within 48 hours of notification, using best commercial
255 practice for packaging and shipment.
256

257 **C.4.7.3 Tester Training.** The contractor shall provide training for the Government FAT vehicle
258 operators and test support personnel. The contractor shall develop and conduct an introduction
259 to the vehicle for Government support personnel prior to Government FAT testing. The training
260 will cover system operation and controls required to safely operate the vehicle, preventive
261 maintenance and other operator-level maintenance tasks. The training shall be at least 50%
262 hands on training. The length of the training class shall be a maximum of 8 hours. The training
263 shall be conducted at the Government's test facility, Aberdeen Test Center. The contractor shall
264 conduct training for a maximum of 12 personnel. The contractor may use commercially
265 available training material for this course.
266

267 **C.4.7.4 Contractor Maintenance Support for Government FAT.** The contractor shall
268 provide technical and maintenance support during all periods of Government testing. Technical
269 and maintenance support consists of providing qualified technical personnel to provide advice,
270 trouble shooting, maintenance assistance, and repair of the system. Maintenance support
271 consists of providing on-site troubleshooting and maintenance, along with spares and repair parts
272 needed to perform periodic services and repairs for the duration of the Government test. The
273 contractor is responsible for shipping and tracking the return of items to or from off-site repair
274 facilities. The contractor shall replace any part which fails to perform its function during the
275 Government test, and correct any deficiency detected. All costs for parts and labor are the
276
277

278 contractor's responsibility. The contractor shall provide personnel, parts and deficiency
279 corrections within 24 hours of notification by the Government and without any additional cost to
280 the Government.

281

282 **C.4.8 Configuration Management**

283

284 **C.4.8.1 Configuration Baseline.** The contractor shall be responsible for maintaining
285 configuration control of the products delivered under this contract. The contractor shall establish
286 a product configuration baseline upon PCO approval of the First Article. This baseline will
287 identify and formally document the functional and physical characteristics of the Heavy Crane.
288 The documentation shall be made available for Government review upon request following
289 establishment of the baseline.

290

291 **C.4.8.2 Engineering Changes - Contractor Initiated.** The contractor shall submit requests for
292 approval of changes to the configuration baseline to the Contracting Officer at least 60 calendar
293 days before the proposed application date. The request for change shall include the information
294 on **CDRL A011**-Engineering Change Proposals.

295

296 **C.4.8.2.1 Government Review**

297

298 The Government may require the contractor to perform additional tests to verify acceptability of
299 any proposed change. The Government will determine the extent of testing up to and including a
300 complete Government FAT for that change. The contractor will perform the tests at no
301 additional cost to the Government. Further, any production or delivery delays caused by
302 additional testing and inspection will not be the basis for an excusable delay as defined in the
303 default clause of this contract.

304

305 **C.4.8.2.2 Responsibility for Data**

306

307 Within 90 calendar days of any configuration change, the contractor shall submit, at no cost to
308 the Government, revisions to all affected contractual data deliverables.

309

310 **C.4.8.2.3 Configuration Change Report**

311

312 The contractor shall maintain a record of configuration changes and shall submit a report
313 summarizing all changes (whether or not change affects form, fit or function) made to date in
314 accordance with **CDRL A012**- Configuration Change Report.

315

316 **C.4.8.2.4 Responsibility for the Cost of Changes.** The responsibility for the cost of changes is
317 as follows:

318

319 **C.4.8.2.4.1** This is a firm-fixed-price contract. There will be no price increases as a result of a
320 contractor initiated configuration change.

321

322 **C.4.8.2.4.2** The Government is not responsible for additional testing or software costs associated
323 with any contractor initiated configuration change.

324
325 **C.4.8.2.4.3** When a change results in reduced contractor costs, the Government may, at the sole
326 discretion of the Contracting Officer, require an equitable downward adjustment to the contract
327 price.

328
329 **C.4.8.2.4.4** The Government is not liable for any costs the contractor may incur, due to delay in
330 contract performance, as a result of any of the contractor's requests for change.

331
332 **C.4.8.3 Engineering Changes – Government Initiated**

333
334 In the event the Government desires a change to the end item configuration, the PCO will
335 request, in writing, a proposal from the contractor.

336
337 **C.4.8.4 Definitions.** The following are definitions of Form, Fit, and Function:

338
339 **C.4.8.4.1 Form:** Fits and functions in the same way as the item it replaces (interchangeable,
340 substitutable) and may include components that are of different materials than the replaced
341 components, but do not affect fit or function (interchangeable, substitutable). Replacement,
342 repair, service or maintenance of the item is exactly the same as the item it replaces.

343
344 **C.4.8.4.2 Fit:** Item goes onto, into or attached, to the equipment exactly as the item it replaces.
345 No difference in mounting, interface or operation between replaced and replacing parts. There is
346 an exact fit match.

347
348 **C.4.8.4.3 Function:** Item operates exactly as the item it replaces, with no functional difference
349 between the old, replaced item and the new, replacing item. When appropriate, the replacing
350 item shall be inspected, replaced, repaired or otherwise maintained in exactly the same method as
351 the item it replaces.

352
353 **C.5 LOGISTICS/SUPPORTABILITY**

354
355 **C.5.1 Integrated Logistics Support (ILS).** The contractor shall appoint an ILS Manager who
356 will be responsible for managing the entire logistics statement of work of this contract. The
357 contractor shall plan, manage, and develop an integrated logistics support program through
358 testing and fielding to ensure supportability of the Heavy Crane. At the SOW meeting, the
359 contractor shall present their integrated logistics support plan for development and management
360 of all logistics products as well as the ILS schedule for incorporation to the contract as an
361 attachment. The plan shall address all 12 elements of ILS identified in Army Regulation 700-
362 127, Integrated Logistics Support and DA Pamphlet 700-56, Logistics Supportability Planning
363 and Procedures in Army Acquisition. The plan shall include the proposed Functional group code
364 sequence (C.5.2.1) to at least indenture level C, where indenture level A is the vehicle.

365
366 **C.5.1.1 Supportability Analysis/Logistics Management Information (LMI).** The contractor
367 shall conduct Supportability Analyses to develop logistics products described in this contract.
368 The contractor shall use GEIA-STD-0007, Performance Specification, Logistics Management

369 Information (LMI), in identifying content, format, delivery and related guidance for logistics
370 data except as otherwise identified in this contract. MIL-PRF-49506 shall be used as reference.
371

372 **C.5.2 Maintenance Planning.** The contractor shall conduct Maintenance Planning that
373 determines maintainability characteristics of the Heavy Crane. This analysis shall be
374 incorporated into the Maintenance Analysis and shall identify all maintenance functions,
375 manpower, spare parts, and the support equipment required. The analysis will be in End Item
376 hardware top down breakdown, disassembly sequence with attaching hardware being called off
377 first. It will identify Functional Group Codes (FGC) in accordance with Technical Bulletin (TB)
378 750-93-1 for each repairable item. The contractor shall develop a supportability analysis as part
379 of the overall management and engineering process for the Heavy Crane. This analysis shall
380 address the supportability requirements of the Heavy Crane in terms of operation and
381 maintenance task requirements and the associated support resources to support it. This
382 supportability analysis shall be incorporated into the Maintenance Analysis.
383

384 **C.5.2.1 Maintenance Analysis.** The contractor shall analyze the operational, maintenance and
385 support functions of the system in the identification of required operator and maintenance tasks.
386 Maintenance of the Heavy Crane will be driven by the two level maintenance concepts: Field
387 and Sustainment. The analysis shall be documented in the contractors format as an LMI
388 summary entitled in the "Maintenance Analysis" and shall identify maintenance functions, levels
389 of maintenance, manpower, spare parts and the support equipment required. NOTE: Maintenance
390 tasks shall be designated to the appropriate Level of Maintenance in accordance with AR 750-1.
391 The analysis shall determine maintenance requirements, including all Preventative Maintenance
392 Checks and Services (PMCS), based on: (1) identification of components which are critical in
393 terms of mission and operating system; (2) components whose functional failure will not be
394 evident to the operator; (3) economical and/or operational consequences of failure; and (4) when
395 scheduled maintenance can prevent failures. The Maintenance Analysis shall be documented in
396 end item hardware breakdown sequence (top-down breakdown), Functional Group codes (FGC)
397 in accordance with Technical Bulletin (TB) 750-93-1. The Maintenance Analysis Summary
398 shall be prepared and delivered in accordance with Attachment 0005-LMI Summary Worksheet:
399 Maintenance Analysis and CDRL A013-Maintenance Analysis (MA).
400

401 **C.5.2.2 Level of Repair Analysis (LORA).** The contractor shall conduct the Level of Repair
402 Analysis (LORA) for the Heavy Crane System. For items with a minimum acquisition unit cost
403 of \$1,000, the contractor analysis shall determine the maintenance level at which the items
404 should be repaired or replaced. The contractor shall include economic and non-economic criteria
405 in this analysis. Non-economic criteria that could impact the level of maintenance decision
406 include, but are not limited to: manpower and personnel implications, support equipment and
407 facilities availability, and the maintenance concept. Results of this analysis shall be incorporated
408 in the Maintenance Allocation Chart (MAC) and Technical Manuals, required elsewhere in this
409 Statement of Work. Additionally, factors such as availability of replacements and the affect on
410 operational readiness must also be considered.
411

412 The Government reserves the right to request that the LORA be made available at Maintenance
413 Planning, Provisioning, and Publication Reviews and Provisioning Reviews. The LORA shall be

414 delivered in accordance with **CDRL A014**- Level of Repair Analysis (LORA) and **Attachment**
415 **0006**-Level of Repair Analysis (LORA).

416

417 **C.5.2.3 Draft Maintenance Allocation Chart (MAC).** The contractor shall submit or update
418 the Maintenance Allocation Chart (MAC) in accordance with MIL-STD-40051-1B. The MAC is
419 a living document that forms the basis for Technical Manual (TM) development. It is, therefore,
420 subject to changes until PVT is completed and approved. The MAC shall identify the repair
421 functions that must be performed, the maintenance levels responsible for the function, the active
422 repair time, tools and test equipment necessary to perform the function for each repairable
423 assembly, subassembly, and component in Functional Group Code (FGC) sequence, in
424 accordance with TB 750-93-1. The MAC shall include all maintenance significant components,
425 assemblies, subassemblies and modules. Parts requiring a test procedure prior to replacement
426 shall also be listed in the MAC. Submit MAC in accordance with **CDRL A015**- Maintenance
427 Allocating Chart (MAC).

428

429 A preliminary report formatted and containing all the elements of a MAC shall be prepared as
430 part of the Maintenance Analysis Summary and provided for each review.

431

432 **C.5.2.4 Support Equipment, Tools, and Test Equipment (STTE).** The contractor shall
433 deliver a list of Support Equipment, Tools, and Test Equipment utilized to maintain the Heavy
434 Crane. The source data for this list will be the Maintenance Analysis, performed per paragraph
435 C.5.2.1. The STTE list shall be delivered on an excel type spreadsheet and shall identify special
436 tools and TMDE not contained in the authorized U.S. Army Supply Catalogs (SCs). The list
437 shall also identify all TMDE being utilized from the authorized SCs to maintain or troubleshoot
438 the Heavy Crane. A list of authorized SCs that contain common tools and other SC information
439 is provided at **Attachment 0007**-Special Equipment, Tools, and Test Equipment (STTE).

440 Maximum use of common tools, support equipment, and TMDE normally organic to the user is
441 desired. If a required item is not contained in the SCs provided then the contractor shall provide
442 the proposed alternative item to the Government. The Government will decide whether or not
443 the contractor proposed alternative item will serve as a suitable and effective replacement for the
444 item in question. The list shall provide Nomenclature, Cage Code (CAGEC), NSN, if assigned,
445 Part Number (PN), level of maintenance, and price of each item on the list. All Government
446 comments and contractor responses shall be captured on the STTE spread sheet for each item on
447 the list. The contractor shall deliver an STTE List in accordance with **CDRL A016**-STTE List
448 and **Attachment 0007**-Special Equipment, Tools, and Test Equipment (STTE).

449

450 **C.5.2.4.1 Special Tools.** The following paragraphs are included to clarify special tools for Army
451 use. Special tools are tools not identified in a unit's authorized Sets, Kits, and Outfits (SKO)
452 SCs. Special tools include:

453

454 **C.5.2.4.1.1** Fabricated tools that are made from stocked items of bulk material, such as metal
455 bars, sheets, rods, rope, lengths of chain, hasps, fasteners, and so forth. Fabricated tools are
456 drawing number controlled and documented by LCNs in Repair Parts and Special Tools Lists
457 (RPSTLs) and located in Technical Manuals (TMs) as appendices. Fabricated tools are used on
458 a single end item.

459

460 **C.5.2.4.1.2** Tools that are supplied for military applications only (e.g., a cannon tube artillery
461 bore brush) or tools having great military use but having little commercial application.

462
463 **C.5.2.4.1.3** Tools designed to perform a specific task for use on a specific end item or on a
464 specific component of an end item and not available in the common tool load that supports the
465 end item/unit (e.g., a spanner wrench used on a specific Ford engine model and on another engine
466 in the Army inventory).

467
468 **C.5.2.4.1.4** Tools and TMDE required to maintain or diagnose the Heavy Crane that are not
469 available in the units authorized SKO SC.

471 **C.5.2.4.1.5** Department of the Army Pamphlet (DA PAM) 700-60 provides regulatory guidance
472 on Sets, Kits and Outfits. It may be obtained at:
473 http://www.army.mil/usapa/epubs/xml_pubs/p700_60/head.xml

474
475 **C.5.2.4.2 Test Measurement Diagnostics Equipment (TMDE).** New TMDE items (those not
476 identified in U.S. Army SCs) may require special source and calibration documentation in order
477 to provide data for possible inclusion to the TMDE register (DA PAM 700-21-1). The contractor
478 shall provide all required data for all new TMDE in accordance with **CDRL A016**-STTE List.

479
480 **C.5.2.5 Critical Stockage List (CSL).** The contractor shall deliver a draft critical stockage list
481 for the Heavy Crane concurrent with the final Maintenance Analysis, based on the existing
482 commercial version of the Heavy Crane. The CSL is defined as component, material, or system
483 whose failure endangers safety or survivability of personnel, or which (1) is essential for the
484 cranes continued operations, (2) is in short supply, (3) has long lead time, (4) is expensive
485 (\$5,000), (5) has high maintenance requirements, or (6) requires special handling procedures.
486 The name critical stockage is used interchangeably with critical material, critical system, or
487 critical items. The items on the CSL are directly related to the provisioning effort required per
488 this contract in that all procurable parts are required to be provisioned and are also required to be
489 on the priced parts list required per this paragraph. The purpose of the CSL is to determine the
490 parts that will comprise the ASL. The Government intends to procure these parts to support
491 initial fielding of the Heavy Crane. The priced parts list shall also match the Bill of Materials
492 (BOM) for the Heavy Crane to the extent the parts are applicable. The CSL shall be prepared
493 and submitted in accordance with **Attachment 0008**-Critical Stockage List, and **CDRL A017**-
494 Critial Stockage List.

495
496 **C.5.2.6 National Maintenance Work Requirement (NMWR) Candidates.** The NMWR
497 candidate list shall be a product of the Maintenance Analysis (MA) (see paragraph C.5.2.1). All
498 components coded for repair at the sustainment level of maintenance, in addition to those items
499 specifically identified under C.5.5.1 and C.5.5.1.6 will be a NMWR candidate. The contractor
500 shall annotate these components on the MA and provide them as a separate list at each MA
501 review. The Government will review the final list of NMWR candidates for approval at the final
502 MA review.

503
504 **C.5.2.7 NMWR Level of Repair Analysis (NMWR LORA).** The contractor shall perform a
505 supportability analysis called a NMWR LORA for each component on the Government approved

506 NMWR candidate list. The LMI summary shall be in the contractor's format, and shall be
507 documented in accordance with Attachment 0009-LMI NMWR LORA. The contractor shall
508 also indicate for each NMWR candidate whether the item is currently available as a
509 remanufactured, rebuilt or otherwise refurbished component. The NMWR LORA shall be
510 delivered in accordance with CDRL A018- National Maintenance Work Requirement (NMWR)
511 Level Of Repair Analysis (LORA).

512 .

513 C.5.3 Diagnostics

514

515 **C.5.3.1 Electronic Diagnostics Testability Analysis.** The contractor shall perform a testability
516 analysis of the Heavy Crane diagnostics capability, to include number and types of diagnostic
517 tests available for all Heavy Crane components, assemblies, systems and subsystems.

518

519 **C.5.3.1.1** The analysis shall identify all diagnostic fault codes for each component, assemblies,
520 systems and subsystems and place them on a tabular format spread sheet. The codes shall be
521 identified with the component, assemblies, systems and subsystems they support. The columns
522 of the spread sheet shall consist of component, fault code/description, tests being performed, test
523 equipment and parameters.

524

525 **C.5.3.1.2** The report shall include a description of on-board electronic diagnostic systems that
526 may be interrogated for the purpose of maintenance and troubleshooting via an on-board
527 diagnostic display screen.

528

529 **C.5.3.1.3** The contractor shall maximize the use of embedded Built-in-Test (BIT)/ Built-in Test
530 Equipment (BITE) diagnostic capabilities, and fully document and support embedded system
531 software.

532

533 **C.5.3.1.4** All data bus and diagnostic connector information for all electronically controlled
534 components of the Heavy Crane shall be identified in detail. The analysis shall identify the
535 OEM recommended practice as to whether a diagnostic connector needs to be located both in the
536 main truck cab and the crane operator cab.

537

538 **C.5.3.1.5** The analysis shall be documented in accordance with CDRL A019- Electronic
539 Diagnostics Testability Analysis Report.

540

541 **C.5.3.2 Diagnostics Software.** The contractor shall provide any software required to interface,
542 retrieve, and interpret the Heavy Crane systems diagnostics data, as identified in section 3.3.19
543 of the ATPD-2408. The software shall be delivered with the FAT system. The one-time run-
544 time fee for software shall be included under Section B.

545

546 C.5.4 Provisioning

547

548 **C.5.4.1 Provisioning Program.** Provisioning requires three key elements: the Provisioning
549 Parts List (PPL), the Engineering Data for Provisioning (EDFP), and the Pre-procurements
550 Screening (PPS). The contractor is responsible to provide data required, as defined in this
551 statement of work for each element. The contractor shall develop and conduct a comprehensive

552 provisioning program for the Heavy Crane that allows for organic (Army) support. The
553 contractor shall develop provisioning data for the Heavy Crane in accordance with GEIA-STD-
554 0007 and MIL-PRF-49506, guidelines of MIL-HDBK-502, and Logistic Management
555 Information (LMI) data worksheets found in GEIA-STD-0007 and MIL-PRF-49506. The
556 Government will use guidance contained in the GEIA-STD-0007 and MIL-PRF-49506 for
557 review and acceptance of provisioning data delivered under the provisions of contract.
558

559 **C.5.4.2 Provisioning Parts List (PPL).** The contractor shall develop and deliver LMI
560 provisioning data (PPL) for all parts, special tools, BII, Component of End Item (COEI),
561 Expendable/Durable and Additional Authorized List (AAL) items identified on the Heavy Crane.
562 Each incremental submission shall have at least 1,600 lines, but no more than 3,000 lines, unless
563 approved in advance by the Government. Each incremental submission shall include at least one
564 additional major assembly. Prime part numbers and Commercial and Government Entity
565 (CAGE) Codes will reflect the original equipment manufacturers information unless that part is
566 modified; changing form, fit, or function. PPL shall be prepared and submitted in accordance
567 with MIL-PRF-49506, Attachment 0010-Provisioning Requirements Statement, Attachment
568 0011-LMI Data Requirement Worksheet, and CDRL A004- PPL/Provisioning Reviews.
569

570
571 **C.5.4.3 Engineering Data for Provisioning (EDFP).** The Government will review the EDFP,
572 to facilitate the NSN request process, prior to the provisioning review. The contractor shall
573 submit EDFP for all items, as required. EDFP consists of data such as specifications, standards,
574 drawings, descriptions, necessary assembly and general arrangement drawings, schematic
575 drawings, schematic diagrams, and diagrams containing wiring and cabling. These are necessary
576 to indicate the physical characteristics, location and function of the item. The EDFP shall be
577 formatted and delivered as referenced below. The EDFP shall provide item identification and
578 descriptions necessary to support the PPL.
579

580 **C.5.4.3.1** The documentation provided by the contractor shall be sufficiently comprehensive to
581 allow the Government to identify, classify, and fully describe the item within the NATO and
582 DLA codification system. The contractor shall provide documentation in the following order of
583 precedence: 1) Product drawings; 2) Developmental Drawings 3) Conceptual Drawings in the
584 form of Catalogue pages (pages must meet data requirements). Reference MIL-DTL-31000A for
585 guidance on drawings.
586

587 **C.5.4.3.2** The EDFP provided by the contractor must illustrate where the Unique Identification
588 (UID) marking is located on the items identified as requiring UID. Section 6 of ASME Y14.100-
589 2000 and MIL-STD-130N provides the requirement for incorporating markings for DoD Item
590 Unique Identification (IUID) into engineering drawings.
591

592 **C.5.4.3.3** Sequencing of EDFP will be by Part List Item Sequence Number (PLISN) and Part
593 Number (P/N). Each drawing will be annotated with PLISN, Original Manufacturer CAGE
594 Code, P/N, Provisioning Contract Control Number (PCCN), and Provisioning Control Code
595 (PCC) and nomenclature.
596

597 **C.5.4.3.4** Nomenclature: A description to include sizes, grade, surface finish, and coatings for
598 common hardware shall be available in LMI data. This data is essential in ensuring that common
599 hardware is not substituted or exchanged due to lack of definitizing information.
600

601 **C.5.4.3.5** EDFP shall be marked in such a manner as to identify the manufacturer's proprietary
602 rights (limited or unlimited) in accordance with the applicable contract technical data rights
603 clause(s). The contractor shall be responsible for advising the Government of any restrictions
604 imposed by the source of the documentation regarding the release of data. Data categorized as
605 Commercial in Confidence shall not be released outside the Government without the written
606 consent of the source.
607

608 **C.5.4.3.6** The EDFP shall be submitted in accordance with CDRL A005-EDFP.
609

610 **C.5.4.4 Provisioning Master Record (PMR).** The contractor shall submit LMI provisioning
611 data (PPL) either on-line or electronically. The Government will discuss each method at the
612 Provisioning Guidance Review or as part of the SOW meeting. All submissions of the LMI PPL
613 data must be compatible with Logistics Modernization Program (LMP) and The Government
614 shall use guidance contained in the GEIA-STD-0007 and MIL-PRF-49506 for review and
615 acceptance of provisioning data. The contractor shall correct all rejects within 10 calendar days.
616

617 **C.5.5 Equipment Publications**

618
619 **C.5.5.1 Technical Publications.** The contractor shall develop and deliver Department of the
620 Army Technical Manuals (DATMs) to support the Heavy Crane. The contractor shall develop
621 Interactive Electronic Technical Manual (IETM) content using TACOM's Next Generation
622 Electronic Maintenance System (EMS) software. All technical manuals shall be XML tagged.
623 All technical manual content including XML, graphics, and multimedia files shall be delivered to
624 the Government via DVD. The TMs and IETM preparation and the delivery requirements are
625 described in:

626 CDRL A020 Operator Manual for TYPE II Heavy Crane

627 CDRL A021 Armor Technical Manual for Type II Heavy Crane

628 CDRL A022 Field Maintenance Manual Including Parts Information (-23&P) for the Type II
629 Heavy Crane

630 CDRL A023 Lubrication Order for the Type II Heavy Crane

631 CDRL A024 Operator/Field Maintenance Manual for Pile Driver

632 Information in the technical manual(s) shall be developed using data obtained from the
633 Maintenance Analysis (see C.5.2.1).
634

635 TM 5-3810-XXX-10 CDRL A020 Operator Manual for Type II Heavy Crane

636 TM 5-3810-XXX-13&P CDRL A021 Armor Technical Manual for Type II Heavy Crane

637 TM 5-3810-XXX-23&P CDRL A022 Field Maintenance Manual Including Parts Information
638 (-23&P) for the Type II Heavy Crane

639 LO 5-3810-XXX-13 CDRL A023 Lubrication Order for the Type II Heavy Crane

640 TM 5-XXXX-XXX-13&P CDRL A024 Operator/Field Maintenance Manual for Pile Driver

641 NMWR 5-2815-XXX CDRL A025 National Maintenance Work Requirement with Repair
642 Parts and Special Tools List (NMWR with RPSTL)-Engine.

TYPE II HEAVY CRANE: RFP NARRATIVES

643 NMWR 5-2520-XXX **CDRL A025** National Maintenance Work Requirement with Repair
644 Parts and Special Tools List (NMWR with RPSTL)-Transmission
645 NMWR 5-XXXX-XXX **CDRL A025** National Maintenance Work Requirement with Repair
646 Parts and Special Tools List (NMWR with RPSTL)-Axles
647 NMWR 5-XXXX-XXX **CDRL A025** National Maintenance Work Requirement with Repair
648 Parts and Special Tools List (NMWR with RPSTL)-Boom Lift Cylinders
649 NMWR 5-XXXX-XXX **CDRL A025** National Maintenance Work Requirement with Repair
650 Parts and Special Tools List (NMWR with RPSTL)-Main Winch Assembly
651

652 **NOTE:** Actual publications numbers will be provided by the Government after contract award.
653

654 **C.5.5.1.1 Operator Manual.** The contractor shall prepare, develop, validate and deliver an
655 operator manual for the Heavy Crane in accordance with MIL-STD-40051-2B and MIL-HBK
656 1222E, MIL-STD-2361C, **Attachment 0012**-General Publications Requirements for Page Based
657 Technical Manuals, **Attachment 0013**-Deployment Equipment Publication Style Guide,
658 **Attachment 0014**-Table A-II TM Requirements Matrix, and **CDRL A020** Operator Manual for
659 Type II Heavy Crane . Warranty information shall be included in the Operator Manual.
660

661 **C.5.5.1.2 Armor Technical Manual.** The contractor shall prepare, develop, validate and deliver
662 a separate Armor Technical Manual to support the use, operation, maintenance, preparation for
663 shipment or storage instructions, parts and installation and removal of the unique Armor Set as
664 applied to the Heavy Crane. The TM shall be prepared and delivered in accordance with MIL-
665 STD-40051-2B, MIL-STD-2361C, **Attachment 0012**-General Publications Requirements for
666 Page Based Technical Manuals, **Attachment 0013**-Deployment Equipment Publication Style
667 Guide, **Attachment 0014**-Table A-II TM Requirements Matrix, and **CDRL A021** Armor
668 Technical Manual for Type II Heavy Crane
669

670 **C.5.5.1.3 Field Maintenance with Parts - IETM.** The contractor shall prepare, develop,
671 validate and deliver an IETM containing Field Maintenance information for the Heavy Crane in
672 accordance with MIL-STD-40051-1B and MIL-HBK 1222E, MIL-STD-2361C, **Attachment**
673 **0015**-Table A-XXI Interactive Electronic Technical Manual -23, **Attachment 0016**- Table A-
674 XVII IETM Functionality Matrix , **Attachment 0013**-Deployment Equipment Publication Style
675 Guide, and **CDRL A022** Field Maintenance Manual Including Parts Information (-23&P) for the
676 Type II Heavy Crane . The IETM will be developed in non-linear format. Troubleshooting shall
677 be developed in complex mode as described in MIL-STD 40051-1B.
678

679 **C.5.5.1.4 Lubrication Order.** The contractor shall prepare, develop, validate and deliver a
680 stand-alone Lubrication Order for the Heavy Crane in accordance with MIL-STD-40051-2B and
681 MIL-HBK 1222E, **Attachment 0015**-Table A-XXI Interactive Electronic Technical Manual -23,
682 **Attachment 0017**-Table A-XVIII Lubrication Order, **Attachment 0013**-Deployment Equipment
683 Publication Style Guide, and **CDRL A023** Lubrication Order for the Type II Heavy Crane.
684

685
686 **C.5.5.1.5 Operator/Field Maintenance Manual for the Contractor-Offered Pile Driver.** The
687 contractor shall prepare, develop, validate and deliver an operator and field maintenance manual
688 for the contractor-offered pile driver attachment for the Heavy Crane in accordance with MIL-

689 STD-40051-2B, MIL-STD-2361C, Attachment 0012-General Publications Requirements for
 690 Page Based Technical Manuals, Attachment 0013-Deployment Equipment Publication Style
 691 Guide, Attachment 0014-Table A-II TM Requirements Matrix, and CDRL A024 Operator/Field
 692 Maintenance Manual for Pile Driver. Warranty information shall be included in the Technical
 693 Manual.

694
 695 **C.5.5.1.6 National Maintenance Work Requirement with Repair Parts and Special Tools**
 696 **List (NMWR with RPSTL).** The contractor shall prepare, validate and deliver a separate
 697 NMWR with RPSTL for the following Heavy Crane components: engine, transmission, axles,
 698 boom lift cylinders, and main winch assembly in accordance with MIL-STD-40051-2B and
 699 MIL-HBK 1222E, Attachment 0018-NMWR Manual Requirements and CDRL A025. The five
 700 NMWRs shall each be differentiated by the use of a new NMWR TM number.

701
 702 **C.5.5.2 Technical Publication Deliverables.** The contractor shall deliver all publications data
 703 in accordance with CDRL A020 Operator Manual for Type II Heavy Crane, CDRL A021 Armor
 704 Technical Manual for Type II Heavy Crane, CDRL A022 Field Maintenance Manual Including
 705 Parts Information (-23&P) for the Type II Heavy Crane, CDRL A023 Lubrication Order for the
 706 Type II Heavy Crane, CDRL A024 Operator/Field Maintenance Manual for Pile Driver.

707
 708
 709 **C.5.5.2.1 Draft Equipment Publication/Preliminary Technical Manual (DEP/PTM).** The
 710 Draft Equipment Publication or DEP/PTM submission(s) shall be delivered as required in the
 711 appropriate CDRL. The validated DEP/PTM must be a complete publication in the same format
 712 as the final publication. Each validated DEP/PTM shall include all required content per the
 713 CDRLs and Attachments. The DEP/PTM will be used during the Logistics Demonstration and
 714 Verification.

715
 716 **C.5.5.2.2 Final Draft Equipment Publication (FDEP).** An FDEP of each manual shall be
 717 delivered as required in the appropriate CDRLs in this contract. The FDEP shall have all
 718 DEP/PTM review, Log Demo and verification corrections, changes, and additions incorporated.
 719

720 **C.5.5.2.3 Final Reproducible Copy (FRC).** FRC submission(s) shall be delivered as required
 721 in appropriate CDRL. The FRC shall include all content required by the respective CDRLs and
 722 attachment; and final resolution of all comments and recommendations made as a result of all
 723 testing, Government review, and results from the contractor validation, Government verification
 724 and any maintenance literature reviews.

725
 726 **C.5.5.2.4 TM Crosswalk.** The MAC, RPSTL, and Maintenance instructions shall be complete
 727 and consistent with the LMI process. The MAC is the framework for development of both the
 728 RPSTL and the Maintenance instructions, and all three should be coordinated. All maintenance
 729 functions listed in the MAC for a component shall have an associated Maintenance work
 730 package(s), at the appropriate level of maintenance, containing tasks supporting the maintenance
 731 functions. A listing of spare parts supporting the required maintenance functions shall also be
 732 listed in the RPSTL work package. The sequence of the Maintenance work packages and the
 733 RPSTL work packages shall follow the Functional Group Code (FGC) sequence in the MAC.

734

735 **C.5.5.3. Quality Assurance (QA).** The contractor shall be responsible for the quality of the TM
 736 deliverables. All delivered TM information shall be complete, technically accurate, and useable
 737 by US Army soldiers. To meet this requirement, the contractor shall develop and use a QA Plan
 738 that guarantees: (1) Periodic QA reviews of TM content by persons different than those
 739 preparing the TM; (2) Maintenance of QA records detailing the findings of those reviews ;(3)
 740 Controls to ensure that current, accurate engineering and parts information is available to TM
 741 preparers. The contractor shall deliver the QA Plan in accordance with **CDRL A026**-Quality
 742 Assurance Plan. Government representatives have the right to review and comment on the
 743 contractor’s QA Plan, records, and processes throughout the duration of the program’s efforts.

744 **C.5.5.3.1 Equipment Publications Defects List.** The contractor shall review and utilize the
 745 Equipment Publications Defects List, **Attachment 0019**- Equipment Publications Defects List,
 746 which the Government uses to guide review of all publication deliverables. Publications
 747 deliverables developed under this contract shall not contain any defects listed on the Equipment
 748 Publications Defects List.

749 **C.5.5.3.2 Acceptable Quality Level (AQL).** The Government’s goal is to ensure that the
 750 contractor has performed sufficient Quality Assurance to eliminate from the TM all defects as
 751 defined in **Attachment 0019** -Equipment Publications Defects List. The DEP/PTM must meet
 752 AQLs before the Government will accept the DEP/PTM and move forward to plan Government
 753 Verification. The Government plans to review 100 percent of the DEP/PTM. If any DEP/PTM
 754 submission fails to meet either AQL criterion—Percentage of Critical Errors or Percentage of
 755 Major Errors—the DEP will immediately be rejected through official notice by the PCO. Critical
 756 and Major errors are defined in the Equipment Publications Defects List. Calculation of
 757 percentage is based on defects per page. During the verification and logistics demonstration
 758 (LD), “NO GOs” will be corrected and returned to the verification team within 24 hours. (A
 759 “NO GO” is defined as a work package that contains critical or major defects that prevent the
 760 procedure from being performed as written.)

| AQLs | | | | |
|------------------|-------------------------|----------------------------|-------------------------|----------|
| TM Size | Sample Review Size | Percent of Critical Errors | Percent of Major Errors | Rejected |
| Less Than 50 WPs | All WPs | 10 Percent | 25 Percent | Yes |
| 50 or more WPs | 25 Percent of Total WPs | 10 Percent | 25 Percent | Yes |

761 **C.5.5.4 Contractor Validation.** The contractor shall validate the technical accuracy and
 762 adequacy of all content in the DEP/PTM prior to its delivery to the Government. The contractor
 763

764 shall maintain records of Validation reviews that show when the material was reviewed, how the
 765 procedures were performed, what the findings were, and all corrective actions taken. The records
 766 shall be signed and certified by two separate contractor representatives. Validation personnel
 767 must include personnel who did not author the procedure. Government representatives have the
 768 right to witness entire or selected portions of the contractor's Validation effort.
 769

770 **C.5.5.4.1 Validation Process.** All Operation, Preventive Maintenance Checks and Services
 771 (PMCS), Troubleshooting, and Maintenance procedures shall be 100 percent hands-on
 772 performance validated to ensure accuracy, compatibility, and completeness. Troubleshooting
 773 procedures shall be validated to the extent possible without damage to equipment. All
 774 performance validation shall be done using Government-issued tools available to the soldier at
 775 the designated level of maintenance, except for necessary STTE items identified under **CDRL**
 776 **A016**-STTE List. The contractor shall ensure the TM data accurately reflects and supports the
 777 Heavy Crane configuration only, including any and all changes to the configuration resulting
 778 from testing, vendor parts supply, and production-line changes. Other content, such as Controls
 779 and Indicators, Front Matter, Rear Matter, Torque Tables, Theory of Operation, Glossary, and
 780 Index information, shall be validated by review against engineering data, TM data, and
 781 Government-procured production configuration hardware.
 782

783 **C.5.5.4.2 Validation Plan.** The contractor is required to have and to use a Validation Plan to
 784 validate TM content. The Validation Plan shall specify how TM content will be validated and
 785 when and where that content will be validated. The Validation Plan shall describe the Validation
 786 method used for each type of TM content. The Validation Plan shall be delivered to the
 787 Government for review in accordance with **CDRL A027**-Validation Plan.
 788

789 **C.5.5.4.3 Validation Report.** A Validation Report shall be delivered after Validation
 790 completion, in accordance with **CDRL A028**-Validation Report. The Validation Report shall
 791 certify that Validation has been completed, shall list in detail the effort undertaken during
 792 Validation (processes, corrections, etc.), and shall show the TM deliverable has had QA applied
 793 with use of the **Attachment 0019**-Equipment Publications Defects List. The Validation Report
 794 shall include a signature of an individual authorized to represent the contractor. The contractor's
 795 complete validation records (see C.5.5.5) shall be made available to the Government upon
 796 request.
 797

798 **C.5.5.5 Logistics Demonstration (LD).** The Government will conduct a Logistics
 799 Demonstration (LD) on the Heavy Crane Technical Manual (TMs)(-10 Operator, and -13
 800 Lubrication Order, and IETM -23&P Field Maintenance w/ Parts) at the contractor facility. LD
 801 will be approximately 60 calendar days in duration IAW the IMS. The contractor shall provide
 802 up to two FAT Logistics production representative Heavy Cranes for LD and must be fully
 803 operational at all times during the LD. The Government will provide Target Audience Soldiers
 804 (TAS) to perform Operator and Maintainer Preventative Maintenance Checks and Services
 805 (PMCS), Operator and Maintainer Troubleshooting (TS), select Reference Work Packages
 806 (WPs), and Maintenance Corrective Action WPs. The Government will develop a Critical Task
 807 List (CTL), which will detail all TS and Reference and Maintenance WPs to be demonstrated.
 808

809 **C.5.5.5.1 LD Planning.** The Government will develop a LD Plan. The contractor shall provide
810 data to support the development of the LD Plan. Data that may be required to develop the LD
811 plan shall include, but is not limited to: Fault Symptom, Fault, Method of Fault Insertion,
812 Equipment Conditions for Troubleshooting, Reference Work Packages, Equipment Conditions
813 for Corrective Action, and Estimated time to complete task series. The Government, with this
814 data, will develop a LD Critical Task List (CTL). The CTL will consist of all WPs required to
815 adequately demonstrate the supportability of the system and is based on the SIPT request and
816 contractors' recommendations and input. The contractor will be provided a Logistics
817 Demonstration Plan by the Government that will include schedule, start date, and time of LD 30
818 days prior to start of the LD.

819
820 **C.5.5.5.2 LD Support.**

821
822 **C.5.5.5.2.1** The contractor shall make available the necessary personnel, facilities, equipment,
823 special tools, test equipment, supplies and pertinent documents required to support the LD. The
824 contractor shall develop a method of inserting non-destructive faults into the Heavy Crane for
825 those applicable TS tasks and shall insert those faults prior to performance of the applicable
826 work packages. The contractor shall provide the TAS with a DA FORM 2404 EQUIPMENT
827 INSPECTION AND MAINTENANCE WORKSHEET, with applicable information to start the
828 task series.

829
830 **C.5.5.5.2.2** The contractor shall provide at a minimum two (2) paper copies of the Operator
831 Technical Manual, the Lubrication Order, and two (2) paper copies of the Maintenance

832 **C.5.5.5.2.3** Technical Manual, for reference purposes of the LD Team. The contractor shall also
833 provide paper copies of all WPs required to perform the LD CTL to the LD team members. The
834 contractor shall install the IETMs and any related contractor software to each MSD provided as
835 GFE

836
837 **C.5.5.5.2.4** The contractor shall provide technical representatives who are fully qualified to
838 answer questions for the duration of the LD.

839
840 **C.5.5.5.2.5** The contractor shall provide Safety and Familiarization Training for the Heavy
841 Crane. This training shall include any and all safety protocols, control and indicator
842 familiarization, and vehicle operation required to safely demonstrate the CTL, prior to TAS
843 demonstration of the CTL.

844
845 **C.5.5.5.2.6** The Government LD team will evaluate each WP demonstrated. The contractor
846 shall document all recommended changes to the Technical Manuals resulting from the
847 demonstration. The contractor shall correct/modify all WPs documented at the LD prior to TM
848 Verification. However any WPs rejected from the LD shall be made available for re-
849 demonstration prior to conclusion of the LD.

850
851 **C.5.5.5.3 LD Report.** After the conclusion of the LD the contractor shall develop a LD Report
852 IAW **CDRL A029**-Logistics Demonstration Report, using DA PAM 700-56, as a reference. The
853 LD Report shall be in the same format as the LD Plan and include the LD strategy, details on the
854 conduct of the LD, data collection, analysis results, all quantitative and qualitative findings, and

855 a description of all necessary follow-on actions. The LD Report findings may include
856 development and operational test data, validation findings, and data derived from the LD. The
857 LD report should outline the following information on each task demonstrated:

858

859 **C.5.5.5.3.1** The nomenclature of all WP tasks attempted, including pre-condition WPs,
860 indented WPs and follow-on maintenance WPs.

861

862 **C.5.5.5.3.2** Initial disposition of each WP and start date (“Go”, “Go w/change”, “No Go”).

863

864 **C.5.5.5.3.3** Final disposition of each WP at the conclusion of the LD.

865

866 **C.5.5.5.3.4** Category (troubleshooting only, troubleshooting with corrective action, remove and
867 replace only, analysis).

868

869 **C.5.5.5.3.5** WPs that satisfy the requirements for TM Verification as well.

870

871 **C.5.5.6 Government Verification.** The Government is responsible for Verification of the TM
872 and to ensure accuracy and usability by US Army soldiers. Government representatives will
873 review the DEP/PTM to determine that proper QA has been used during preparation, that the
874 DEP/PTM is complete, and that the DEP/PTM is adequate for Verification. Verification may
875 consist of hands-on performance of up to 100 percent of Operator and Maintenance procedures.
876 The Government has the right to choose to verify the TM by desktop review, review on
877 equipment, hands-on performance, or any combination of these methods. The Government
878 intends to verify by performance to the extent required to ensure the contractor has properly
879 prepared and validated TM content.

880

881 **C.5.5.6.1 Contractor Facilities Support to the Government Verification.** The contractor shall
882 provide support to the Government Verification process. This support shall consist of: facilities;
883 tables; chairs; contractor personnel to assist with record keeping, equipment preparation and
884 maintenance; mandatory replacement parts supply; consumables (such as rags, lubricants,
885 sealants), Government-provided tools (GFE); and contractor-provided special tools.

886

887 **C.5.5.6.2 Contractor Personnel Support to Government Verification.** The contractor shall
888 also provide personnel to take notes of all corrections, to answer questions, to review
889 Verification issues, and to advise the Government of changes or recommendations that arise
890 during Verification. The contractor shall arrange for the services of a photographer to assist in
891 documenting problem areas and changes required to correct errors or omissions in the DEP/PTM
892 procedures being verified.

893

894 **C.5.6 Packaging**

895

896 **C.5.6.1 Packaging Data.** The contractor shall develop and provide to the Government LMI-
897 packaging data for all provisioned Items with a Source, Maintenance & Recoverability (SMR)
898 code of P excluding PR and PZ. Packaging shall be developed in accordance with MILSTD-
899 2073-1D, Attachment 0020- LMI Data Worksheet: Packaging Data Products, and Attachment
900 0021-LMI Data Worksheet: Packaging Data Transaction Format, and CDRL A030-Packaging

TYPE II HEAVY CRANE: RFP NARRATIVES

901 Data Products. All items shall be classified as Selective group or Special group. LMI-packaging
902 data is required in accordance with GEIA-STD-0007 and will provide for the entry of
903 information to the Governments computer data base. The LMI-packaging data shall be in an
904 ASCII delimited text format using commas as delimiters. Quotation marks may be used as text
905 qualifiers but are not required. The contractor shall provide new or corrected LMI-packaging
906 data for any revision created by a Configuration change. Contractor shall provide facilities,
907 equipment, materials, and access to the provisioned items for packaging development at no
908 addition cost to the Government. With each data submission, the contractor shall include
909 verification support data for each of the LMI-packaging data items, which shall provide the
910 Government a reasonable means to determine the adequacy of the contractor prepared packaging
911 analysis and data submittal. This shall include item drawings and copies of applicable Material
912 Safety Data Sheets for Hazardous Material items. Any HAZMAT items shall be considered
913 Special Group Items and have packaging designed to meet the requirement of the HAZMAT
914 regulations. Excluded items are those items with packaging data already in the TACOM
915 Packaging File "PACQ", FEDLOG, FLIS, and those assigned a contractor and Government
916 Entity Code (CAGE) of: 1T416, 21450, 80204, 96906, 10060, 24617, 80205, 99237, 80244,
917 81343, 81348, 81349, 81352, or 88044.

918

919 **C.5.6.2 Selective group.** Items classified as Selective group shall not have a unit pack weight
920 exceeding 40 pounds or a dimension greater than 40 inches. In addition, the unit pack length and
921 girth combined shall not exceed 84 inches. A Selective group item shall not require disassembly
922 for packaging, and reconfiguration is limited to folding or coiling. Items classified as repairable,
923 recoverable, containing hazardous material or assigned a shelf life shall not be considered
924 Selective group.

925

926 **C.5.6.2.1 Selective (coded) Packaging Data.** The contractor shall develop Selective Packaging
927 Data for each item classified as Selective group. The data shall be developed, maintained and
928 updated in accordance with **CDRL A030**-Packaging Data Products. At the contractor's request,
929 the Government will provide a MS ACCESS application to the contractor that provides data
930 formatting and edit features for coding of packaging data products in accordance with MIL-STD-
931 2073-1D.

932

933 **C.5.6.3 Special Group.** The contractor shall classify items as Special group if drawings, figures,
934 or extensive narrative instructions are needed to describe packaging requirements. Items
935 excluded from the Selective group shall be classified as Special group. Examples include kits,
936 sets and items of separate parts, items requiring disassembly, repairable items, items requiring
937 special handling or condemnation procedures, items containing hazardous material, items
938 assigned a shelf life, electrostatic discharge sensitive items, fragile, sensitive, and critical items.

939

940 **C.5.6.3.1 Special Packaging Instructions (SPI):** The contractor shall develop a SPI for each
941 item classified as Special Group. The format and content of SPI shall be in accordance with LMI
942 Packaging Data Development and **CDRL A031**-Special Packaging Instructions (SPI). All
943 NMWR candidate items require Special Packaging Instructions, including the five items
944 specifically identified under C.5.5.1 and C.5.5.1.6. When determining which type of container to
945 use, reference MIL-STD-2073-1D Appendix C. The SPI for the engine shall include
946 preservation procedures and validation with coordination from TACOM-LCMC packaging

947 office in Warren, MI. Attachment 0022-ATPD 2232, Engines: Preparation For Shipment And
948 Storage, can be used as a guide. Packaging processes and materials shall be described for
949 cleaning, drying, preserving, unit pack, intermediate pack, and exterior packing, marking, and
950 unitization. Figures and narrative data shall be developed to describe the form, fit, and function
951 of packaging in sufficient detail for reproduction. The SPI shall be delivered in accordance with
952 CDRL A031-Special Packaging Instructions (SPI).

953

954 **C. 5.6.3.1.1 Validation Testing of Preservation Processing and Packaging:** Validation testing
955 of SPI candidates shall be in accordance with ASTM D 4169 (Standard Practice for Performance
956 Testing of Shipping Containers and Systems) Distribution Cycle 18, Assurance Level I, with
957 Acceptance Criterion 3 (product is damage free and packaging is intact), but exclude the
958 following tests: Low Pressure Hazard, Environmental Hazard, Warehouse or Vehicle Stacking
959 and Vehicle Vibration. Each SPI submitted shall have a validation test report, including
960 photographs illustrating the before and after testing results including the item and packaging
961 application. Acceptable photographic evidence shall show the product is undamaged from all
962 views. Items with previously approved documented test results may be exempt from validation
963 testing. Test results, as well as, engine preservation validation shall be submitted concurrently
964 with SPI submittal and in accordance with CDRL A031-Special Packaging Instructions (SPI).

965

966 **C.6 TRAINING**

967

968 **C.6.1 New Equipment Training (NET).** The contractor shall develop courses of instruction and
969 deliver associated training materials to train the operators and maintainers of the Heavy Crane.
970 When ordered in a Delivery Order, the contractor shall conduct NET classes.

971

972 **C.6.1.1 New Equipment Training (NET) Courses.**

973

974 **C.6.1.1.1 Operator and Operator Maintenance (OPNET)** The OPNET course shall be
975 designed to train operators of the Heavy Crane and cover complete vehicle operations, to include
976 all attachments, load handling, operator safety, general safety, operator Preventive Maintenance
977 Checks and Services (PMCS), loading and unloading for transport, complete tie down for
978 shipment, and proper use of on-board tools, equipment, and BII. The course will cover load
979 planning/sling angles plus lifting equipment inspections, for example: slings, shackles, spreaders,
980 and lifting points. The training shall be consistent with procedures established in the appropriate
981 vehicle technical manual. The course shall be at least 70% hands-on and 40 hours in duration, or
982 equivalent based on a maximum of 6 students per class, 3:1 student to machine ratio and 3:1
983 student to instructor ratio. The class has a prerequisite requiring that a soldier have in their
984 possession a valid military driver's license for the 22½ ton or higher capacity crane to attend this
985 course. At the end of each class, the contractor shall conduct a hands-on performance test for
986 each operator being trained. The contractor shall score each student based on their performance
987 as "GO/NO GO". To receive a "GO" for this course, the student must successfully complete a
988 written examination and a hands-on performance evaluation with a minimum score of 80%.

989

990 **C.6.1.1.2 Field Level Maintainer New Equipment Training (FLMNET).** The FLMNET
991 course shall be designed for field level mechanics supporting the Heavy Crane and cover
992 minimal operation characteristics, field level PMCS, troubleshooting, diagnosis and repair of

TYPE II HEAVY CRANE: RFP NARRATIVES

993 system unique control systems, engine, fuel, transmission, axle, braking, electrical, hydraulic,
994 pneumatic, boom and other ancillary systems of the vehicle. This course should also cover the
995 quarterly, semi-annual, and annual crane inspection procedures. Also cover that when
996 repairing/replacing any load bearing equipment, for example: outriggers, lifting cylinders, or
997 wire rope the crane needs to be retested/recertified. The course shall be directed toward new
998 technologies and items not currently in the Army system or different from the current system in
999 the field. Training shall be consistent with procedures established in the appropriate vehicle
1000 technical manual. The training shall include a block of instruction using the IETM and MSD
1001 diagnostic tool. The course shall be at least 70% hands-on and 40 hours in duration, or
1002 equivalent based on a structure of 6 students per class with a student to instructor ratio of 6:1 and
1003 student to machine ratio of 6:1. The contractor shall score each student based on their
1004 performance as "GO/NO GO". To receive a "GO" for this course, the student must successfully
1005 complete a written examination and a hands-on performance evaluation with a minimum score of
1006 80%.

1007

1008 **C.6.1.2 Training Material and Documentation.** For each NET course, the contractor shall
1009 develop, prepare and deliver the following course documentation and training materials.

1010

1011 **C.6.1.2.1 Training Course Control Document/Course Outline.** For each course, the
1012 contractor shall develop a separate Training Course Control Document describing the course
1013 content (subject, topics, and task), training material, types and duration of instruction, and all
1014 resources and support required to conduct the training in an institutional setting. The Training
1015 Course Control Document shall contain front matter, an introduction, course description data,
1016 outline of instruction summary, curriculum outline of instruction, course summary and
1017 presentation schedule. The Course Outline shall be delivered in accordance with **CDRL A032-**
1018 **Course Outline.**

1019

1020 **C.6.1.2.2 Instructor Lesson Plans, Student Guides.** For each course, the contractor shall
1021 prepare an Instructor Lesson Plan and a Student Guide. Each element of the training course
1022 outline shall be fully developed, finalized and delivered in accordance with **CDRL A033-**
1023 **Instructor Lesson Plan and Student Guides.** The Government may provide sample training
1024 materials and outlines at the SOW meeting upon request. The contractor may supplement
1025 Operator and Maintainer Training used for Commercial Customers with information reflecting
1026 militarization of the system. All student and instructor lesson material and guides used to
1027 conduct the training course shall be included. The training materials may consist of contractor
1028 handbooks, in-house training material, pamphlets, training literature, utility manuals, software
1029 manuals, maintenance manuals, logic diagrams, schematics, flow block diagrams, equipment
1030 description and functional data, testing procedures, visual aids, and other documents suitable for
1031 use in development of training programs. Visual aids may consist of videos, slides,
1032 transparencies, wall charts, schematics, illustrations, pictures, drawings, and cutaways of
1033 components. Materials submitted must not conflict with the content of the vehicle technical
1034 manuals. No classified information is to be included in the training materials. The contractor
1035 shall deliver all course control documents and training materials in accordance with **CDRL**
1036 **A033-Instructor Lesson Plan and Student Guides.**

1037

1038 **C.6.2 Critical Task List (CTL).** The contractor shall develop a list of all tasks considered
1039 critical for the operator or maintainer to accomplish their mission and duties and to survive in the
1040 full range of Army operations. Critical tasks must be trained. The contractor shall ensure any
1041 new maintenance tasks identified during the Maintenance Analysis (see paragraph C.5.2.1) are
1042 also included. The CTL shall be developed in accordance with TRADOC Regulation 350-70 for
1043 Task Analysis and Task Development and delivered in accordance with **CDRL A034**-Critical
1044 Task List and **Attachment 0023**-Critical Task List.
1045

1046 **C.6.3 Training Material Verification & Training.**
1047

1048 **C.6.3.1 Training Material Verification.** The contractor shall conduct two training classes (one
1049 operator and one maintainer) at the contractor's facility, conforming to the NET courses
1050 (C.6.1.1), to verify the training material. The contractor shall use the NET course training
1051 materials developed under this contract. The contractor shall provide special tools, parts,
1052 training aides, materials, and facilities to conduct the verification. The contractor shall ship the
1053 LOG vehicles and the Government provided common tools to the verification location.
1054

1055 **C.6.3.2 Instructor and Key Personnel (I&KP) Training.** The contractor shall conduct two
1056 training classes (one operator and one maintainer) conforming to the NET courses (C.6.1.1) to
1057 train instructors and other key personnel. The contractor shall use the NET course training
1058 materials developed under this contract. The contractor shall provide vehicles, special tools,
1059 parts, training aides, materials, and facilities to conduct training. The contractor will ship the
1060 vehicle and the Government provided common tools to the training facility. Target the courses
1061 for individuals who are instructors, skilled Crane operators, and mechanics.
1062

1063 **C.6.4 New Equipment Training (NET) Classes.** The contractor shall conduct OPNET and
1064 FLMNET classes with course material developed under paragraphs C.6.1.1.1 and C.6.1.1.2 at
1065 Government sites or at receiving unit sites during hand-off. The number of classes, duration, and
1066 training locations will be identified in separate delivery orders. Students will be Government
1067 personnel. The Government will provide the contractor 30 calendar days notification for CONUS
1068 classes. The Government will provide the contractor 90 calendar days notification for OCONUS
1069 classes.
1070

1071 **C.6.5 Training Course Completion Report/Student Training Administration.** This section
1072 applies to I&KPT (C.6.3.2) and NET (C.6.4). The contractor shall complete and deliver a
1073 Training Course Completion Report upon completion of each class in accordance with **CDRL**
1074 **A035**-Training Course Completion Report.
1075

1076 **C.6.6 Instructor Certification and Credentials.** All training will be conducted by instructors
1077 certified by the International Board of Standards for Training Developers and Instructors
1078 (IBSTDI) or shall possess military equivalent Army Basic Instructor Course certification. The
1079 contractor shall provide proof of certification upon request.
1080

1081 **C.7 ITEM UNIQUE IDENTIFICATION (IUID)**
1082

1083 **C.7.1** For those components specifically identified in the DFARs clause 252.211-7003, the
1084 contractor shall identify all items that may require an IUID and submit an IUID Marking Plan in
1085 accordance with **CDRL A036**- IUID Marking Plan for Government review/concurrence. A draft
1086 list of components to be marked shall be presented at the Logistics SOW Meeting.

1087
1088 **C.7.2 IUID Construct and Method.** The contractor shall create the IUID and marking method
1089 in accordance with MIL-STD-130N. The contractor shall use IUID Construct #2. The UID
1090 marking shall include the UII on the IUID plate or label, or on the item identification plate, or
1091 directly on the item in 2D Data Matrix barcode symbology. The end item UID marking shall be
1092 embedded on the system data plate. A 2D Data Matrix, ECC 200 compliant bar code (ISO/IEC
1093 16022) shall be used to carry the IUID data elements. The machine readable information (MRI)
1094 shall contain discrete elements including: Unique item identifier (Construct 2); Issuing Agency
1095 Code; Enterprise Identifier; Original Part Number; and Serial Number.

1096
1097 **C.7.2.1 Identification/Data Plate for End Items.** The contractor shall use MIL-STD-130N, as a
1098 guide when developing the "System" data plate. The end item UID marking shall be embedded
1099 on the system data plate. The End Item 2D matrix shall contain human and machine-readable
1100 markings and shall be no less than 1 cm wide and no less than 40% contrast. The minimum data
1101 plate information for the Parent End Item is listed below:

- 1102
1103 a) Nomenclature
1104 b) National Stock Number (NSN)
1105 c) Design Activity: (MFR ID Cage Code)
1106 d) Government Ownership Designation: US Government Property
1107 e) Contract Number
1108 f) 2-dimensional IUID data matrix
1109 g) Unique Item Identifier (UII)

1110
1111 **C.7.2.2 Data Plates for Subassemblies, Components, or Other Parts.** All spare parts,
1112 secondary repairables, and consumables candidates described in DFARs clause 252.211-7003
1113 shall also be marked with the IUID prior to delivery to the Government. The contractor shall use
1114 MIL-STD-130N, figure 9 as a guide when developing the IUID marking for subassembly,
1115 component or parts. The Child End Item 2D matrix mark shall contain human and machine-
1116 readable markings when possible and shall be no less than 1 cm wide and no less than 40%
1117 contrast. If the item has a data plate the IUD marking shall be embedded on the data plate.

1118
1119 **C.7.3 IUID Location and Marking.** The locations and marking methods selected should bear
1120 no impact on the performance of the part and minimal configuration change(s) to the part. All 2D
1121 data matrix shall be permanently affixed and have the ability to withstand and perform within the
1122 same environmental conditions as the SYSTEM.

1123
1124 The contractor shall perform engineering analysis to determine the appropriate method for
1125 marking each item that requires IUID. The contractor shall ensure that the IUID marking
1126 location will be optimized for ease of scanning, and shall avoid applying IUID markings on
1127 curved or rounded surfaces.

1128

1129 The IUID (including 2D Matrix) should be incorporated onto the existing data plate when
 1130 possible. The end item UID marking shall always be embedded on the system data plate. If a
 1131 child 2D matrix cannot be incorporated onto the data plate, a 2D matrix sticker can be applied
 1132 onto the main data plate provided it can be done without covering any critical data. When the 2D
 1133 Data Matrix is placed directly onto the data plate, human readable characters such as the Part
 1134 Number, Serial Number and CAGE, are not required. If the above cannot be accomplished, a
 1135 separate data plate can be attached which contains the 2D Matrix plus the human readable
 1136 characters for the Part Number, Serial Number and CAGE. This added data plate should be
 1137 attached in close proximity to the main data plate. The contractor shall document the location
 1138 and marking method on the engineering technical documentation (e.g. drawings).
 1139

1140 **C.7.4 IUID Registration.** The prime contractor has the responsibility to furnish IUID data to the
 1141 IUID registry. The contractor shall register and validate all IUIDs with the DoD IUID Registry
 1142 and shall ensure all item parent/child relationships are accurately recorded in the IUID Registry.
 1143 Data submission of IUID data and acquisition cost should be submitted via Wide Area Work
 1144 Flow (WAWF), IUID XML file, IUID flat file or web entry. This data shall be reported in
 1145 accordance with **CDRL A037**-IUID Marking Activity, Validation and Verification Report.
 1146 Additional information regarding data submission as well as the actual marking can be found at
 1147 http://www.acq.osd.mil/dpap/pdi/uid/data_submission_information.html.
 1148
 1149

1150 **C.7.5 IUID Data Records.** The contractor shall maintain an accurate, current list of UIIs for all
 1151 items procured under this contract. This list shall be supplied to the Government upon request.
 1152 The list shall include UII, P/N, Serial Number, CAGE, Parent UII (if applicable), construct used,
 1153 IUID location, type of marking, and registration method used. The list shall be prepared and
 1154 delivered in accordance with **CDRL A037**- IUID Marking Activity, Validation and Verification
 1155 Report.
 1156

1157 **C.7.6 Item Unique Identification (IUID).** The contractor shall update the IUID Marking Plan
 1158 and deliver an updated IUID Marking Plan that includes the IUID marking of all “SYSTEM”
 1159 unique components in accordance with MIL-STD-130N, and the latest guidance found on the
 1160 Defense Procurement and Acquisition Policy IUID website:
 1161 <http://www.acq.osd.mil/dpap/pdi/uid/index.html>
 1162

1163 The contractor shall develop and assign IUID constructs for components and assemblies in
 1164 accordance with MIL-STD-130N or current revision. IUID shall be applied to items in
 1165 accordance with MIL-STD-130N or current revision. The contractor shall upload IUID records
 1166 into the DoD registry in accordance with **CDRL A037**- IUID Marking Activity, Validation and
 1167 Verification Report. A pre-production sample IUID tag will be provided by the PM.
 1168

1169 **C.7.7. Hardware Changes in IUID.** For any hardware change as a result of an ECP, the
 1170 contractor shall recommend and the Government concur on the determination of tag locations.
 1171 As changes are made to the “System”, the contractor shall use the above information in deciding
 1172 if changes need to be made or revised to insure IUID tag marking.
 1173

1174 **C.7.8. IUID Quality Assurance.** The contractor shall provide evidence of validation and
1175 verification of a predetermined representative sample of the data matrix marks on each NSN
1176 bearing IUID in a report in accordance with **CDRL A037** IUID Marking and Verification Report.
1177 The contractor shall ensure that any IUID marks are formatted correctly, and are not duplicates
1178 of existing IUID marks using the Quick compliance Checker:
1179 <http://www.acq.osd.mil/dpap/pdi/uid/technology.html>.

1180

1181 **C.8 SYSTEM HAND-OFF**

1182

1183 **C.8.1 Total Package Fielding.** The Government will use a Total Package Fielding (TPF)
1184 approach for delivery and hand-off of the system to receiving units. The Government will
1185 coordinate with the Force Modernization Offices (FMOs), Army Field Support Battalions
1186 (AFSBs), and/or Reserve Component points of contacts to establish Materiel Fielding Plans
1187 (MFPs). The contractor shall transport and deliver all hardware and associated support packages
1188 (identified in C.1) in accordance with shipping instructions. Contractor shall perform post-
1189 delivery de-processing and support hand-off of the equipment to receiving units to include all
1190 personnel transportation. One system hand off shall consist of at least one unit and will not
1191 exceed 6 units per location. If multiple delivery locations are required within the same hand-off
1192 zone, then the cost of the system hand off will be on a per delivery location basis.

1193

1194 **C.8.2 Acceptance and Registration.** For each vehicle presented for Government acceptance,
1195 the contractor shall prepare a DA Form 2408-9, Equipment Control Record, in accordance with
1196 the "Acceptance and Registration" instructions (in paragraph 5-7c (3) of DA PAM 750-8) to
1197 report acceptance of each Heavy Crane into the U.S. Army inventory. A copy of the form is
1198 furnished at **Attachment 0017**-Table A-XVIII Lubrication Order. The contractor shall have the
1199 Defense Contract Management Command (DCMC) Quality Assurance Representative (QAR)
1200 complete blocks 22 and 23 as the person accepting the item into the Army inventory.

1201

1202

1203 **C.8.3 Inventory List.** The contractor shall develop a complete Inventory List using a DA Form
1204 3161 and 3161-1, Request for Issue or Turn-in according to DA PAM 710-2-1 and **CDRL A039**-
1205 Inventory List & DA Form 3161. The Inventory List shall include a complete inventory of all
1206 material shipped with the vehicle, including the end item, publications, BII, (COEI), Initial
1207 Service Kit (ISK), ASL, and special tools. The Inventory List will be used at each fielding to
1208 conduct hand-off. It will be updated to reflect any changes in items, part numbers, or NSNs as
1209 needed through delivery of final vehicle on contract.

1210

1211 **C.8.4 Delivery and Fielding after NET.** For each delivery required under this contract, the
1212 contractor shall deprocess the equipment, activate the warranty upon shipment with common
1213 carrier, and support hand-off of the equipment and associated support packages to the gaining
1214 units after NET has been provided to the units. NET will either be provided by the contractor or
1215 the Government as determined by the Government. The Government reserves the right to have
1216 Government representatives present at all hand-off activities. Hand off and training costs for
1217 OCONUS sites only will be negotiated after contract award.

1218

1219 **C.8.4.1 Delivery Deprocessing.** All vehicles shall be delivered in a full “ready to operate”
1220 configuration prior to training and/or hand-off. The contractor shall be responsible for all tools,
1221 equipment, and personnel required to deprocess, repair or reassemble the equipment upon
1222 delivery to the receiving location, including replacement of missing or damaged parts and
1223 components.

1224
1225 **C.8.4.2 Delivery Site Familiarization.** When required by the Government, the contractor shall
1226 provide familiarization training for up to eight operators at the delivery site to allow movement
1227 of the vehicle within the delivery site until full training and hand-off is accomplished. The
1228 training should not exceed two (2) hour and shall include proper start-up and shut down
1229 procedures, basic operation (driving) procedures, transportation preparations, safety precautions,
1230 attachments familiarization and basic lift functions.

1231
1232 **C.8.4.3 Inventory and Hand-off.** The Government, contractor and receiving unit shall conduct
1233 a joint inventory and sign DA Form 3161 for each vehicle delivered at hand-off. The DA Form
1234 3161 (as approved under C.8.3) shall include the vehicle serial number, registration number and
1235 Unique Item Identifier (UII) of the end item (and any separately provided component that
1236 qualifies for UII) as well as the unit(s) Property Book Officer (PBO) name, commercial phone
1237 number and e-mail address. The DA 3161 will then be provided to the PM in accordance with
1238 **CDRL A039**- Inventory List & DA Form 3161. In addition, the contractor shall maintain a
1239 database of all vehicles and equipment produced and provided to the Government. This
1240 Accountability Report shall be delivered in accordance with **CDRL A040**- Accountability
1241 Report.

1242 **C.9 WARRANTY**

1243
1244
1245 **C.9.1 Commercial Warranty.** The contractor shall over pack all commercial warranties, with
1246 all applicable pass through warranties, inside each Heavy Crane delivered to the Government.
1247 The warranty period shall not begin until activated by the contractor upon shipment with
1248 common carrier to the receiving unit. The details of the warranty shall be included in the
1249 technical manuals.

1250
1251 **C.9.2 Warranty Performance Report.** The contractor shall submit a report reflecting any of
1252 the warranty claims processed on each vehicle within the appropriate reporting period in
1253 accordance with **CDRL A041**- Warranty Performance Report. In addition, the report shall
1254 include the number of operating hours on the vehicle at the time of fault.

1255 **C.10 FIELD SERVICE REPRESENTATIVES (FSRs)**

1256
1257
1258 **C.10.1 General.** The contractor shall provide Field Service Representatives who will provide
1259 on-site technical support (both CONUS and OCONUS), during contingency and non-
1260 contingency operations. The FSRs shall be experienced personnel and qualified to advise, make
1261 recommendations, and to orient, and instruct key Government personnel with respect to
1262 operation, maintenance, and repair of the Heavy Crane and its components. The effort consists
1263 of investigation and diagnosis of problems or issues in the field related to vehicle performance,
1264 maintenance, and training. The Contracting Officer shall designate the times and locations of the

1265 service to be performed, but will not supervise or otherwise direct the specific activities.
1266 Instructions and established itineraries will be provided in delivery orders.

1267
1268 **C.10.2 FSR Reporting.** Each FSR shall prepare and submit via e-mail a Field Service Report in
1269 accordance with **CDRL A042**- Field Service Representative (FSR) Report following completion
1270 of each assignment covering their activities.

1271
1272 **C.10.3 FSR Personal Data.** The contractor shall make available personal data related to the
1273 FSRs including documentary evidence such as birth certification and such evidence as is
1274 requested by the local Government installation or area in which services are to be performed.
1275 The contractor shall request approval for each FSR and include a statement of qualification for
1276 each representative. Government approval shall be limited to granting or denying security
1277 clearance for the person named. The contractor shall contact local personnel and comply with
1278 local procedures. The local personnel will be identified in the delivery order.

1279
1280 **C.10.4 FSR Labor**

1281 Defense Logistics Agency (DLA) Parts Tracking. The Contractor shall gain access as a
1282 Government Contractor on the DOD EMALL website (DLA). The Contractor shall need to
1283 register as a new user on the site. (The website address is <https://dod-emma.dla.mil> <[https://dod-](https://dod-emma.dla.mil)
1284 [emma.dla.mil](https://dod-emma.dla.mil)) After the Contractor obtains access to EMALL, The contractor shall enter parts
1285 maintenance usage into EMALL for any repairs on the vehicles. The Contractor shall be
1286 entering their parts usage as DHA (Demand History Allocation) transactions. The Contractor
1287 will provide a monthly report to the Government of all parts that are entered into EMALL IAW
1288 CDRL A042.

1289

1290

1291 **C.10.4.1 CONUS and Non-contingency OCONUS.**

1292

1293 **C.10.4.1.1** For this contract, CONUS is defined as any location in the continental United States.
1294 OCONUS is defined as any location outside the continental United States. Contingency is
1295 defined as operations in locations in support of deployments in hostile areas. Non-contingency is
1296 defined as operations in fielding or deployments in support of normal operations in CONUS or
1297 OCONUS (e.g., Germany).

1298

1299 **C.10.4.1.2** For urgent deployments, the contractor shall arrive at the designated location within
1300 14 calendar days of delivery order issuance. For non-contingency OCONUS deployments, the
1301 contractor shall arrive within thirty calendar days of delivery order issuance.

1302

1303 **C.10.4.1.3 Man-Days of Service.** A Man-Day of service includes any period during which the
1304 representative is delayed or prevented from performing any task only if the delay or non-
1305 performance is solely the Government's fault. Man-Day(s) of service includes travel time for
1306 initial travel from contractor's facility to site of work, for travel between sites of work, and to
1307 contractor's facility. It also includes any time that the FSR is preparing required reports at the
1308 work site and we can verify the time involved in writing the report. The Government will pay
1309 for federal holidays during the period of performance, in addition to the actual days worked at
1310 the Man-day rate established. The Government is not responsible for vacation and other

TYPE II HEAVY CRANE: RFP NARRATIVES

1311 holidays and sick leave pay. The Government is not responsible for any emergency leave that
1312 the contractor may grant to the FSR while performing work under this contract. The
1313 Government is responsible for actual days worked by any qualified contractor representative. It
1314 is immaterial whether the same representative completes the assignment. The travel costs, if
1315 necessary, will be negotiated at the time the delivery order is issued, on a firm-fixed price basis,
1316 and not to exceed Government Joint Travel Regulations. The negotiated price for travel costs
1317 will include only one complete round-trip transportation and travel costs between sites of work
1318 per assignment. Travel will be funded on a separate CLIN, and is not included in the composite
1319 labor skill set or rate. Contractor travel will be all inclusive, with proposal to reflect air travel,
1320 ground travel, lodging, per diem, etc., as individual line items. Individual delivery orders will
1321 provide travel details for discreet projects. Field Service Representative services may be ordered
1322 in one of three ways:

1323
1324 **C.10.4.1.3.1** A CONUS Man-Day is 8 hours and the representative is to work no more than 40
1325 hours per week, unless otherwise negotiated at delivery order issuance.

1326
1327 **C.10.4.1.3.2** An OCONUS non-contingency Man-Day is 8 hours a day and the representative is
1328 to work no more than 40 hours per week, unless otherwise negotiated at delivery order issuance.

1329
1330 **C.10.4.1.3.3** An OCONUS contingency Man-Day is 10 hours a day, seven days a week, unless
1331 otherwise negotiated at delivery order issuance.

1332 1333 **C.10.4.2 OCONUS Contingency**

1334
1335 **C.10.4.2.1** OCONUS contingency deployments require contractor personnel to process and de-
1336 process through the Individual Replacement Deployment Operation (IRDO). The government
1337 will schedule the IRDO processing dates. The contractor shall supply a FSR IRDO Data report in
1338 accordance with **CDRL A043**-FSR IRDO Data.

1339
1340 **C.10.4.2.2** The contractor shall supply personal tool kits, communications, and IT equipment
1341 (including satellite hookup where necessary) to contractor FSR personnel deployed in support of
1342 the Heavy Crane. In the event the contractor is unable to provide communications, the contractor
1343 shall notify the COR or PCO. The contractor shall provide FSR personnel with service and parts
1344 manuals, special tools, TMDE items necessary to diagnose and repair the Heavy Crane, and to
1345 detect and repair subsystem and armor related faults.

1346
1347 **C.10.4.2.3 FSR Rest and Relaxation Requirement.** Deployed FSRs will be given two weeks
1348 of R&R leave per every six months in the AoR. The Government shall provide transportation
1349 from the AoR to the Point of Debarkation and from the Point of Debarkation to the AoR. Airfare
1350 from the Point of Debarkation to the U.S., and return trip, will be funded as described in
1351 paragraph C.10.4.2.5.2 below. FSRs shall NOT receive a labor rate while on R&R. The
1352 contractor shall schedule arrangements for R&R travel. All leave must be coordinated with and
1353 approved by the PCO or COR.

1354
1355 **C.10.4.2.4 Insurance.** Defense Base Act insurance is only applicable to travel to Iraq,
1356 Afghanistan, and Kuwait.

1357

1358 **C.10.4.2.5 OCONUS FSR Processing**

1359

1360 **C.10.4.2.5.1** Civilian and Contractor Deployment and Redeployment Information: The
1361 contractor shall provide to the Government the names of the employees deploying to the AOR no
1362 later than one week after delivery order award. The contractor shall fill out the information
1363 required at [Attachment 0024](#)-IRDO Personal Information Data Requirements, in accordance with
1364 CDRL A043 -FSR IRDO Data. The Government will in turn issue a Letter of Authorization
1365 (LOA) for those employees deploying. The LOA will contain all the information that is needed
1366 to request a Call Forward and data to input information into the Synchronized Pre-deployment &
1367 Operational Tracker (SPOT) system. The contractor is required to track their employees in the
1368 SPOT system. The FSRs shall be scheduled for processing through IRDO in Camp Atterbury,
1369 IN no later than four weeks before deploying. This schedule is subject to change based on space
1370 availability.

1371 The contractor shall request approval for each FSR and include a statement of qualification for
1372 each representative. Government approval shall be limited to granting or denying security
1373 clearance for the person named. The contractor shall contact local personnel and comply with
1374 local procedures. The local personnel will be identified in the delivery order. For any contractor
1375 personnel determined by the Government at the deployment-processing site to be non-
1376 deployable, the contractor shall promptly remedy the problem. The contractor personnel shall
1377 notify their point of contact in the theater of their deployment to the Area of Operations (AO),
1378 movement within the AO, and their departure date from the AO. Upon completion of the
1379 employee's tour, contractor personnel shall redeploy and out-process through the Government
1380 deployment-processing site.

1381

1382 **C.10.4.2.5.2 Letter of Agreement (LOA) for Deployed Contractor Employees.** Unless
1383 prohibited by international agreement, the Contracting Officer shall provide a LOA for deployed
1384 contractor personnel. This is the document contractor employees must carry with them as
1385 authorization for use of Government transportation, medical facilities, billeting, and other
1386 entitlements. Contractor employees are not authorized to use Invitational Travel Orders.

1387

1388

1389 **C.10.4.2.5.3 Transportation to/from IRDO.** The contractor shall provide transportation for
1390 their personnel from point of origin to IRDO, Camp Atterbury, IN and return, except for the
1391 initial and final trips. The Government will provide transportation from IRDO to the area of
1392 operation (theater) and return upon completion on the mission. If Government travel is
1393 unavailable, travel for these trips will be negotiated.

1394

1395 **C.10.4.2.6 Living Conditions**

1396

1397 **C.10.4.2.6.1 Housing.** The Government will provide housing for contractor employees at
1398 OCONUS locations where contingency operations are being conducted, except Kuwait.

1399

1400 **C.10.4.2.6.2 Subsistence.** Contractor employees will be provided Government subsistence
1401 which includes meals, billeting, emergency medical care, emergency dental care, and access to
1402 morale and welfare activities and available chaplains as authorized in the LOA or elsewhere in

1403 this contract. The Government will not provide routine medical and dental care. If subsistence
1404 changes during deployment (e.g. the Combatant Commander or subordinate Commander
1405 changes the authorizations), the contractor must notify the Contracting Officer.
1406

1407 **C.10.4.2.7 Support and Force Protection.** As OCONUS performance for this effort will be
1408 located in various locations in contingency operations, PM CE/MHE is identified as the entity
1409 that will provide all support for the FSRs, the combatant command will provide transportation
1410 between bases and airport locations, billeting, security and logistical needs to support this effort.
1411 The Government will not provide a vehicle for use within an installation. While performing
1412 duties in accordance with terms and conditions of the contract, the Service Theater Commander
1413 will provide force protection to the contractor employees commensurate with that given to
1414 Service/Agency (e.g. Army, Navy) civilians in the operations area.
1415

1416 **C.10.4.2.8 Relocation/Evacuation.** The Government may, at its discretion, relocate personnel
1417 (who are citizens of the United States, aliens in resident in the United States, or third country
1418 nationals, not residents in the host nation) to a safe area or evacuate them from the area of
1419 operations as required by the operational situation. The U.S. State Department has responsibility
1420 for evacuation of non-essential personnel.
1421

1422 **C.10.4.2.9 Contractor Memorandum of Understanding for Deployed Employees.** The
1423 contractor shall ensure that each employee hired by or for the contractor (including
1424 subcontractors) acknowledges in writing that they understand the danger, stress, physical
1425 hardships, and field living conditions that are possible if the employee deploys in support of
1426 military operations. The contractor shall ensure that contents of this paragraph are included in all
1427 subcontracts.
1428

1429 **C.10.4.2.10 Security Background Check.** Due to further force security issues and concerns in
1430 theater, many commands are asking for verification of the status of our contractor's security
1431 background. As a result, the contractor must maintain a completed background check on file for
1432 each employee that will be deployed.
1433

1434 **C.10.4.2.11 Medical Information**

1435
1436 **C.10.4.2.11.1 Physical Requirement.** Prior to deployment, the contractor shall ensure that all
1437 deployable personnel are medically and physically fit to endure the rigors of deployment in
1438 support of a military operation. Contractor employees who fail to meet medical or fitness
1439 standards, or who become unfit through their own actions, will be removed from the area of
1440 operations and replaced at the contractor's expense. Medical or fitness standards can be found at
1441 <https://www.infantry.army.mil/crc/>. All personnel must have a complete set of immunizations
1442 and inoculations for entry into the deployment location.
1443

1444 **C.10.4.2.11.2 Medications.** Deploying contractor employees shall carry with them a 90 day
1445 supply of any medication they require. Military facilities will not be able to replace many
1446 medications required for routine treatment of chronic medical conditions such as high blood
1447 pressure, heart conditions, asthma, and arthritis. Contractor employees will review both the

1448 amount of the medication and its suitability in the foreign area with their personal physician and
1449 make any necessary adjustments prior to deployment.

1450
1451 **C.10.4.2.11.3 Eyeglasses.** If glasses are required, the contractor employees will deploy with two
1452 pairs of glasses and a current prescription. Copies of the prescription will be provided by the
1453 employee to the CRC so that eyeglass inserts for use in a compatible chemical protective mask
1454 can be prepared.

1455
1456 **C.10.4.2.11.4 Medical Screening.** The Government does require a medical screening at the
1457 CRC for FDA approved immunizations, which shall include DNA sampling.

1458
1459 **C.10.4.2.12 Additional Deployment Information**

1460
1461 **C.10.4.2.12.1 Chemical Defensive Equipment (CDE) Training.** The Government shall
1462 provide the contractor employees with Chemical Defensive Equipment (CDE) familiarization
1463 training commensurate with the training provided to Department of Defense civilian employees.
1464 The training and equipment will be provided at the CRC for employees traveling from CONUS.

1465
1466 **C.10.4.2.12.2 Isolated Personnel Report and Survival Evasion Resistance Escape**
1467 **(FPI/SERE).** The Government shall provide the contractor employees with the necessary
1468 Isolated Personnel Report (ISOPREP) and Survival Evasion Resistance Escape (FPI/SERE)
1469 training. This training will be conducted at the CRC.

1470
1471 **C.10.4.2.12.3 Identification Tags, Geneva Convention and Common Access Cards.** The
1472 contractor shall ensure that all deploying individuals have the required identification tags and
1473 cards prior to deployment. In addition to the DD FM 489 (Geneva Convention Card) issued at
1474 the point of deployment, all contractor employees will be issued personal identification tags and
1475 Common Access Cards (CAC), if available before deployment. Personal identification tags will
1476 include the following information: full name, social security number, blood type, and religious
1477 preference. Contractor employees will maintain all issued cards and tags on their person at all
1478 times while OCONUS. These cards and tags shall be obtained through CRC, and shall be
1479 promptly returned to the Government upon redeployment.

1480
1481 **C.10.4.2.12.4 VISAs.** The contractor shall ensure that their employees obtain any appropriate
1482 VISAs before they will be allowed to enter IRDO.

1483
1484 **C.10.4.2.12.5 Organizational Clothing and Individual Equipment.** Contractor employees
1485 accompanying the force are not authorized to wear military uniform, except for specific items
1486 required for safety and security. The Combatant Commander, subordinate Joint Force
1487 Commander (JFC), or Army Force (ARFOR) Commander may require that contractor employees
1488 be issued and be prepared to wear Organizational Clothing and Individual Equipment (OCIE), to
1489 include Chemical, Biological, and Radiological Element (CBRE) and High-Yield Explosive
1490 defensive equipment, necessary to ensure contractor personnel safety and security. The
1491 contractor employees shall sign for all issued OCIE to acknowledge receipt and acceptance of
1492 responsibility for the proper maintenance and accountability of the OCIE. The contractor
1493 employees shall return all issued OCIE to the Government at the place of issue unless directed

1494 otherwise by the Contracting Officer. The Contracting Officer shall require the contractor to
1495 reimburse the Government for OCIE lost, stolen, or damaged due to contractor negligence or
1496 misconduct.

1497
1498 **C.10.4.2.12.6 Operator Vehicle Licenses.** The contractor shall ensure that deployed employees
1499 possess the required licenses to operate all vehicles or equipment necessary to perform contract
1500 tasks in the theater of operations. Before operating any military owned or leased vehicles or
1501 equipment, the contractor employee shall provide proof of license (issued by an appropriate
1502 Governmental authority) to the unit or agency issuing the vehicles or equipment.

1503
1504 **C.10.4.2.12.7 Firearms.** Contractor employees in support of U.S. military operations are not
1505 permitted to carry personally owned firearms. Contractor employees normally shall not be
1506 armed during active military operations; however, the Combatant Commander may authorize
1507 issue of standard military side arms and ammunition to selected personnel for personal self-
1508 defense. In this case, weapons familiarization, qualification, and briefings on rules of
1509 engagement, shall be provided to the contractor employees, completed at the CRC. Even if
1510 authorized, acceptance of weapons by the personnel is voluntary, and must also be permitted by
1511 their employer.

1512
1513 **C.10.4.2.12.8 Employee's Emergency Contact Data.** Before deployment, the contractor shall
1514 ensure that each contract employee completes at least three DD Forms 93, Record of Emergency
1515 Data Card. One completed form is for the CRC, one copy for the Army's Casualty & Memorial
1516 Affairs Operations Center (CMAOC), and one copy for the Army Materiel Command (AMC)
1517 Logistics Support Element (LSE) Contractor Coordination Cell (CCC) or other designated
1518 liaison.

1519
1520 **C.10.4.2.12.9 Next of Kin (NOK) Information.** As Executive Agent for mortuary affairs, the
1521 Army will facilitate the notification of Next of Kin (NOK) in the event that a U.S. citizen
1522 contractor employee accompanying the force OCONUS dies, requires evacuation due to injury,
1523 or is reported missing. The Department of the Army will ensure that the contractor notifies the
1524 employee's primary and secondary NOK. In some cases, an Army notification officer may
1525 accompany the employer's representative. Notification support by the Army is dependent upon
1526 each contractor employee completing and updating as necessary, the DD Form 93, Record of
1527 Emergency Data Card. The contractor is responsible for the evacuation of contractor employee
1528 remains from Kuwait.

1529
1530 **C.10.4.2.12.10 Employee's Health and Life Insurance.** The contractor shall ensure that health
1531 and life insurance benefits provided to its deploying employees are in effect in the theater of
1532 operations and allow traveling in military vehicles.

1533
1534 **C.10.4.2.12.12 Contractor Employee Personal Conduct.** The contractor shall at all times
1535 remain responsible for the conduct of its employees. The contractor shall promptly resolve to the
1536 satisfaction of the Government, all contractor employees performance and conduct problems
1537 identified by the Government. Failure to correct such problems may result in the Government
1538 directing the contractor, at the contractor's own expense, to replace and, where applicable,
1539 repatriate any employee who fails to comply with this language to adhere to instructions and

1540 general orders issued by the Combatant Commander or his/her designated representative. Such
1541 action may be taken at the Government's discretion without prejudice to its rights under any
1542 other provision of this contract, including the Termination for Default Clause.
1543

1544 **C.11 Type II Heavy Crane Training Simulator.** The contractor shall deliver a Type II Heavy
1545 Crane Training Simulator (CTS) that meets all the technical requirements specified under
1546 [Attachment 0025](#)- Simulator Performance Spec and [Attachment 0026](#)- Simulator System Spec
1547 Markings.
1548

1549 **C.11.1 Delivery Requirements.** To ensure that the training devices meet contractual
1550 requirements, the contractor shall conduct an in-plant inspection test prior to the delivery and set
1551 up at the installation site. The Government reserves the right to witness this test. A functional
1552 test of the CTS will be conducted at the Government installation site post-installation. Upon
1553 satisfactory demonstration of CTS performance, the device will be accepted by the Contracting
1554 Officer's Representative (COR). The contractor shall deliver a Simulator Test Plan in
1555 accordance with [CDRL A044](#)-Simulator Test Plan.
1556

1557 **C.11.2 CTS Software.** Licensed copies of all software shall be installed upon delivery;
1558 updates shall be provided for the life of the contract at no cost to the Government.
1559

1560 **C.11.2 Training.**
1561

1562 **C.11.2.1 Training Materials.** The contractor shall deliver an instructor's guide with each
1563 Instructor Station in accordance with [CDRL A045](#)-Simulator Instruction Guides. The contractor
1564 shall deliver a student's guide with each Student Station in accordance with [CDRL A046](#)-
1565 Simulator Student Guides.
1566

1567 **C.11.2.2 Instructor Training.** The vendor shall provide instructor training on the use of the
1568 CTS. This training shall enable instructors receiving the training to instruct follow-on trainers,
1569 without the need for refresher training from the vendor, unless refresher training is necessitated
1570 by equipment or software upgrades.
1571

1572 **C.11.2.3 Fort Leonard Wood Training.** The contractor shall provide training for schoolhouse
1573 staff instructors at Fort Leonard Wood, MO. Training shall include setup, operation, and
1574 preventive maintenance of all CTS software, hardware, and electronics. This instruction shall
1575 enable schoolhouse staff instructors to train follow-on instructors without the need for refresher
1576 training from the contractor, unless refresher training is necessitated by equipment or software
1577 upgrades. The vendor shall create and deliver a Personal Qualifications Standards (PQS) for
1578 instructors to be signed off on to operate the simulators and trainer station. This PQS will consist
1579 of all procedures and processes incorporated with simulation, and shall be delivered in
1580 accordance with [CDRL A047](#)-Personal Qualification Standards. The PQS shall be updated to
1581 accommodate simulator upgrades and shall address refresher training.
1582

1583 **C.11.3 Simulator Warranty.** The contractor shall over pack all commercial warranties, with all
1584 applicable pass through warranties, with each simulator station delivered to the Government. The
1585 warranty period shall not begin until activated by the contractor upon shipment with common

1586 carrier to the Government installation location. The details of the warranty shall be included in
1587 the instructor's guide. The contractor shall submit a report reflecting any of the warranty claims
1588 processed on each simulator station within the appropriate reporting period in accordance with
1589 **CDRL A048**-Simulator Warranty. In addition, the report shall include the number of operating
1590 hours on the simulator at the time of fault.

1591
1592 **C.11.4 Help Desk Support.** In the event that a commercial warranty is supplied for the CTS,
1593 the contractor shall provide help desk support for the duration of the commercial warranty. A
1594 help desk support telephone line and email address shall be made available to the Government
1595 during normal business hours, defined as from 8:00 AM to 5:00 PM, local time Fort Leonard
1596 Wood, MO. This help desk support shall provide technical support and assistance regarding the
1597 operation of the CTS.

1598
1599 **C.12 Interim Contractor Logistics Support (ICLS):**

1600
1601 **C.12.1** This ICLS effort is to perform maintenance support upon handoff of Heavy Cranes
1602 fielded within CONUS zones. The Contractor is required to maintain the readiness of the Heavy
1603 Crane to the Army standard prescribed in Chapter 3-2, Army Regulation 750-1 (Army
1604 Maintenance Management Policy). The Contractor will calculate the Operational Readiness Rate
1605 (ORR) monthly using the formula given under the definition of ORR for the currently fielded
1606 fleet. IAW AR 700-138, newly issued items may be accounted for in a partial period. Readiness
1607 calculations will be made for the period beginning the 16th day/0001 hours of the month to the
1608 15th day/ 2400 hours of the following month. The Contractor will not be held accountable for
1609 Government Delay Time (GDT) such as NMWR Delay Time (NDT), delays with the unit
1610 notifying the Contractor of a non-mission capable deficiency, or denial of access to the NMC
1611 equipment or maintenance facilities. This effort shall include all maintenance of Heavy Cranes,
1612 as well as repair of inoperative or malfunctioning Heavy Cranes not covered under any warranty.
1613 The contractor provided ICLS effort shall cover field maintenance or repairs that soldiers are not
1614 authorized to perform due to the absence of an approved Maintenance Technical Manual (TM).
1615 The contractor shall provide all labor, parts, and tools required to perform maintenance and
1616 repairs. Fluids will be provided by the unit. Labor shall be based on a man day rate.

1617 The CONUS location zones are defined as follows:

1618 Zone 1: Washington, Oregon, Idaho, Nevada, California

1619 Zone 2: Utah, Arizona, Colorado, New Mexico

1620 Zone 3: Montana, Wyoming, Nebraska, South Dakota, North Dakota

1621 Zone 4: Kansas, Oklahoma, Texas, Missouri, Arkansas, Louisiana

1622 Zone 5: Minnesota, Wisconsin, Michigan, Indiana, Illinois, Iowa, Ohio

1623 Zone 6: Kentucky, Virginia, West Virginia, Tennessee, North Carolina, South Carolina,
1624 Maryland, Delaware

1625 Zone 7: Mississippi, Alabama, Georgia, Florida

1626 Zone 8: New Jersey, Pennsylvania, New York, Connecticut, Massachusetts, Vermont, New
1627 Hampshire, Maine, Rhode Island

1628

1629 **C.12.2 Maintenance Procedure:**

1630

1631 **C.12.2.1** The contractor shall provide an ICLS Point of Contact (POC) to the unit possessing the
1632 Heavy Crane in need unscheduled maintenance or repair within 12 hours of receipt of the
1633 maintenance or repair request. For all non-mission capable machines, the contractor shall
1634 provide an ICLS FSR to the CONUS location of the Heavy Crane to perform necessary on site
1635 diagnostics, maintenance and repairs within 24 hours of notification. For all machines that are in
1636 a FMC status, yet in need of maintenance or repair, the contractor shall provide on-site
1637 diagnostics, maintenance and repairs within 48 hours from time of notification.

1638

1639 **C. 12.2.2** The contractor shall provide a priced list of recommended maintenance and repair parts
1640 per **CDRL A049 - ICLS Maintenance and Repair Parts List**. This list must be submitted with the
1641 contractor's proposal for Government review; the approved list shall be incorporated into the
1642 contract as **Attachment 0028 - ICLS Priced Maintenance and Repair Parts List**.

1643 **C. 12.2.3** When maintenance or repair is required, the unit will notify the contractor who will
1644 determine if the repair is covered under warranty. If it is determined to be a warranty covered
1645 repair, the Crane shall be repaired in accordance with the Commercial Warranty as specified
1646 under Section C.9. If the anticipated repair is not under the warranty, the COR shall notify the
1647 contractor and request submission of **CDRL A050-ICLS FSR Maintenance Request** within 48
1648 hours of notification.

1649 **C.12.2.4** Upon Procuring Contracting Officer (PCO) approval of CDRL A050, ICLS FSRs shall
1650 be sent to one of the aforementioned CONUS zones and bill labor based on the man day rate.
1651 Travel will be negotiated in accordance with Joint Travel Regulations (JTR) at time of PCO
1652 authorization. For all non-mission capable Cranes, the contractor shall provide on-site support
1653 within 24 hours from time of authorization. For all Cranes that are in a mission capable status
1654 yet in need of maintenance or repair, the contractor shall provide on-site support within 48 hours
1655 from time of authorization.

1656 **C.12.2.5** If the Crane malfunction cannot be diagnosed or repaired on site, the ICLS FSR shall
1657 execute necessary maintenance or repair actions to facilitate the Army unit's ability to recover
1658 the system by requesting the Army unit to transport the Crane to the nearest home base
1659 maintenance shop. At the maintenance shop, the contractor shall execute necessary maintenance
1660 or repairs. In the event the Crane cannot be fixed at the maintenance shop, written notification to
1661 the PCO will be made by the COR. The PCO may then authorize the Crane be transported to the
1662 nearest approved Original Equipment Manufacturer (OEM) dealer location, to complete
1663 repair(s).

1664 **C.12.3 Parts Usage and Maintenance Report.** Interim Contractor Logistics Support (ICLS)
1665 will transition to organic support approximately two years after the First Unit Equipped (FUE)
1666 date. In accordance with CDRL **A051-ICLS Part Usage and Maintenance** Report, the ICLS
1667 contractor shall provide logistics management information on a quarterly basis as part of an

TYPE II HEAVY CRANE: RFP NARRATIVES

1668 overall data collection effort to seamlessly transition ICLS to organic military maintenance and
1669 supply system. Planning for transition from ICLS to organic support is essential to continuous
1670 sustainment of the fielded

1671
1672 Standard Army Maintenance Management Information Systems (STAMIS) will be used to the
1673 maximum extent possible. All ICLS maintenance man hours and all consumable and repair parts
1674 required shall be captured in the unit's STAMIS (ULLS/SAMS/GCSS-A) system. In the event
1675 that required parts are not procured in accordance with Attachment 0028 - ICLS Priced
1676 Maintenance and Repair Parts List or not yet provisioned in the Department of Defense (DoD)
1677 system, they will be provided to the Government at no additional cost.

1678 **C.12.3.1** The contractor shall not charge the Government under this contract for any parts or
1679 services covered by manufacturer's or pass-through warranties.

1680
1681 **C.12.4 Scheduled Maintenance Intervals.** The contractor shall provide receiving units the
1682 scheduled maintenance intervals for the Heavy Crane prior to availability of the -23 manual.
1683 This shall be provided as part of the Hand-Off and NET process.

1684
1685 **C.12.5 Contractor Personnel:**

1686
1687 **C.12.5.1 Contractor Clearance Procedures:** The contractor shall be responsible for facility
1688 clearances, identification badges, and security clearance orchestration for contractor personnel.

1689
1690 **C.12.5.2** Selected contractor personnel assigned to work on this contract shall receive and retain
1691 contractor I.D. badges, vehicular stickers for privately owned vehicles, and Common Access
1692 Cards (CACs) required to obtain access to Government computers. Information needed to
1693 obtain a CAC card: Name, Social Security number, Date of Birth and Email address. The
1694 methods for verifying completion of the background vetting requirement within the DoD CAC
1695 issuance infrastructure are based on the personnel category of the potential CAC recipient. The
1696 mechanisms required to verify completion of background vetting activities for DoD military and
1697 civilian CAC populations are managed within the DoD human resources and personnel security
1698 communities and linked to the CAC issuance process. An automated means is not currently in
1699 place to confirm the vetting for populations other than DoD military and civilian personnel such
1700 as CAC-eligible Contractors and non-DoD Federal civilian affiliates; therefore, Government
1701 sponsors are responsible for ensuring that the vetting requirements have been met before
1702 approving CAC issuance for all populations.

1703
1704 **C.12.5.3** Access by contractor personnel to the Government on-line systems shall be revoked if
1705 actions of the personnel assigned to these tasks are found by the Government to be in conflict
1706 with the interest of the Government. All contractor personnel must maintain a favorable
1707 background investigation before accessing databases. All information or data developed under
1708 this contract belongs to and is the property of the U.S. Government. The contractor shall not
1709 release any information or data to third parties without the express written approval of the
1710 Procuring Contracting Officer. Non-Disclosure Agreements are required of all contractor
1711 personnel performing under this contract. The contractor is responsible for obtaining required
1712 identification cards, tags, and badges in accordance with AR 600-8-14. The contractor and sub

1713 contractor(s), if any, shall complete a background security check of all personnel (SF-85P)
1714 before new employees report for duty. Execution of SF-85P is a requirement for contractor
1715 personnel to receive a Common Access Card (CAC).
1716

1717 The contractor shall have access to Government data for the accomplishment of work under this
1718 agreement. Contractors shall conform to all security requirements as specified in the basic
1719 contract. The contractor may contact the Facility Security Officer (FSO) or the G2, for
1720 assistance in initiating action to receive a security clearance.
1721

1722 **C.12.6 ICLS Commercial Operator New Equipment Training (NET)**
1723

1724 **C.12.6.1 ICLS Operator and Operator Maintenance (OPNET)** The ICLS OPNET course
1725 shall be the contractors commercial operator course for the Heavy Crane and cover complete
1726 vehicle operations, to include all attachments, load handling, operator safety, general safety,
1727 operator Preventive Maintenance Checks and Services (PMCS), loading and unloading for
1728 transport, complete tie down for shipment, and proper use of on-board tools, equipment, and BII.
1729 The course will cover load planning/sling angles plus lifting equipment inspections, for example:
1730 slings, shackles, spreaders, and lifting points. The training shall be consistent with procedures
1731 established in the appropriate vehicle technical manual. The course shall be at least 70% hands-
1732 on and 40 hours in duration, or equivalent based on a maximum of 6 students per class, 3:1
1733 student to machine ratio and 3:1 student to instructor ratio. The class has a prerequisite requiring
1734 that a soldier have in their possession a valid military driver's license for the 22½ ton or higher
1735 capacity crane to attend this course. At the end of each class, the contractor shall conduct a
1736 hands-on performance test for each operator being trained. The contractor shall score each
1737 student based on their performance as "GO/NO GO". To receive a "GO" for this course, the
1738 student must successfully complete a written examination and a hands-on performance
1739 evaluation with a minimum score of 80%.
1740

1741 **C.12.6.2 ICLS New Equipment Training (NET) Classes.** The contractor shall conduct ILSC
1742 OPNET classes with course material defined under C.12.6.1 at Government sites or at receiving
1743 unit sites during hand-off. The number of classes, duration, and training locations will be
1744 identified in separate delivery orders. Students will be Government personnel. The Government
1745 will provide the contractor 30 calendar days notification for CONUS classes.
1746

1747 **C.12.6.2.1 Student Attendance Reports.** On the first day of each training class the contractor
1748 shall send by facsimile or by email a list of students in attendance to the Government. Within ten
1749 days after completion of the class, the contractor shall furnish a student roster to the
1750 Government. The roster shall include the name of the class, start and end date, instructor(s) name
1751 and signature, location of the class, student name, military rank (if military), last four numbers of
1752 social security, military occupational skill (MOS), AKO email or active email address, home unit
1753 station address, record of daily attendance for each student, and instructors notes.
1754

1755 At the end of the class, each student shall complete a class critique. The Government will
1756 provide a sample critique sheet and the contractor shall administer them. The contractor shall
1757 submit the completed critiques to the Government along with the student roster.
1758

1759 At the end of the class, the contractor shall present each student with a Certificate of Training.
1760 The Government will provide the training certificate master file for the contractor to administer
1761 certificates to the students. The contractor may also administer a corporate certificate. These
1762 reports shall be delivered in accordance with **CDRL A035**- Training Course Completion Report.
1763

1764 **C.12.6.2.2 ICLS Instructor Certification and Credentials.** All training will be conducted by
1765 instructors certified by the International Board of Standards for Training Developers and
1766 Instructors (IBSTDI) or shall possess military equivalent Army Basic Instructor Course
1767 certification. The contractor shall provide proof of certification upon request.
1768

DRAFT

1769 **SECTION D: PACKAGING AND MARKING**

1770

1771 **D.1. Preservation and Packaging**

1772

1773 **D.1.1** The Heavy Crane including any attachments, special purpose kits, BII, COEI and ISK
1774 shall be processed to the level of protection specified in the Delivery Order.

1775

1776 **D.1.2** All software, technical data, reports, and contractual documentation delivered under this
1777 contract shall be preserved and packaged to deter theft and assure safe arrival at destination
1778 without damage to contents.

1779

1780 **D.1.3** Consumable items, Training Aids, System Support Packages (SSP) and Special Tools
1781 scheduled for shipment shall be preserved and packaged by the contractor to provide physical
1782 and mechanical protection, provide multiple handling, shipment by any mode, placed into
1783 storage for a period of one year in an enclosed environmentally controlled facility and suitable
1784 for redistribution without additional repackaging. Item shall be free of dirt and other
1785 contaminants. Coatings and preservatives applied to an item are not considered contaminants.
1786 Components susceptible to corrosion or deterioration shall be provided protection by means of
1787 preservative coatings, volatile corrosion inhibitors, desiccants, water proof and/or water vapor
1788 proof barriers. Components requiring protection from physical and mechanical damage shall be
1789 protected by wrapping, cushioning, pack compartmentalization, or other means to mitigate shock
1790 and vibration to prevent damage during handling and shipment.

1791

1792 **D.1.3.1** In addition to Paragraph D.1.4 requirements, each item must comply with the regulations
1793 of the dedicated freight carrier used and shall provide safe delivery to destination at the lowest
1794 possible tariff cost. Any wood material used in the fabrication of contractor's generated ISP
1795 packaging design must comply with requirement outlined in Paragraph D.1.5.

1796

1797 **D.1.4** All Non-manufactured Wood used in packaging shall be heat treated to a core temperature
1798 of 56 degrees Celsius for a minimum of 30 minutes. Box, pallet and dunnage and any wood used
1799 as inner packaging made of Non-Manufactured Wood shall be heat-treated. The box, pallet and
1800 dunnage manufacturer and the manufacturer of wood used as inner packaging shall be affiliated
1801 with an inspection agency accredited by the board of review of the American Lumber Standard
1802 Committee. The box, pallet and dunnage manufacturer and the manufacturer of wood used as
1803 inner packaging shall ensure traceability to the original source of heat treatment. All Non-
1804 manufactured wood products used for shipment to OCONUS locations MUST conform with the
1805 International Plant Protection Convention (IPPC) International Phytosanitary Measure-15
1806 (ISPM-15).

1807

1808 **D.1.5** For each hazardous material item shipped under this contract, a copy of the Material Safety
1809 Data Sheet (MSDS) shall be placed into a sealed pouch and attached to the outside surface area
1810 of the Unit Container and Intermediate Container containing the prescribed hazardous material
1811 item. The contractor shall comply with the applicable codes and standards listed here: (1) Code
1812 of Federal Regulation Titles 29, 40 and 49, (2) International Maritime Dangerous Goods Code,
1813 for vessel transport, and (3) AFMAN 24-204, Preparing Hazardous Materials for Military Air
1814 Shipments.

1815
1816
1817
1818
1819
1820
1821
1822
1823
1824
1825
1826
1827
1828
1829
1830
1831

D.2 Marking

D.2.1 The Army Heavy Crane shipped through the military distribution system or by commercial carriers shall be marked and labeled in accordance with MILSTD-129 Revision P (4).

D.2.2 All software, technical data, reports, etc. and contractual documentation referenced in Paragraph D.1.2 shall be identified by the prime contract number, name and address of the prime contractor, and where applicable, the name and address of the subcontractor generating the data.

D.2.3 Each Non-manufactured wood box, pallet and dunnage shall be marked to show the conformance to the International Phytosanitary Measure-15 (ISPM-15). The quality mark shall be placed on both ends of the outer packaging, between the end cleats or end battens; on two sides of the pallet. Wood used as dunnage for blocking and bracing shall be ordered with ALSC certified markings or the markings may be applied locally at two foot intervals.

DRAFT

1832 **SECTION E: INSPECTION AND ACCEPTANCE**

1833

1834 **E.1 WELDING PROCEDURES/INSPECTION/WELDER CERTIFICATION**

1835

1836 **E.1.1 Welding Design.** The contractor in performance of this contract shall ensure that all steel
1837 and aluminum weldments meet the latest edition of design and fabrication requirements in
1838 American Welding Society (AWS) D1.1 and AWS D1.2; AWS D1.3, Structural Welding Code-
1839 Sheet Metal (DoD Adopted); AWS D14.3, Specification for Earthmoving and Construction
1840 Equipment, or approved equivalent.

1841

1842 **E.1.2 Welding Procedures & Weld Repairs.** Prior to manufacturing, the contractor shall
1843 prepare welding procedures in accordance with American Welding Society (AWS) weld code
1844 requirements. The use of pre-qualified weld joints as specified in AWS D1.1 does not preclude
1845 submittal of welding procedures. Repair welding of defective parts shall require Government
1846 approval and a written procedure identifying proper technique and approach to correct defective
1847 product.

1848

1849 **E.1.4 Welder Qualification.** Before the contractor or the contractor's suppliers assign any
1850 welder or welding operator to perform manual, semi-automatic or automatic welding work, or
1851 use any automatic welding equipment for work covered by this contract, the contractor shall
1852 ensure that all welding equipment to include gauges and meters used in the performance of this
1853 contract has been certified, and that the contractor's welders or welding operators have passed
1854 qualification testing, as prescribed by the applicable qualification standard.

1855

1856 **E.1.5 Visual Weld Inspection.**

1857

1858 **E.1.5.1 Welding Inspectors.** During performance of this contract, the contractor shall verify
1859 weld quality and workmanship using qualified inspectors trained to perform these inspection
1860 functions. The contractor shall make available all personnel qualification records upon request
1861 by the Government. The inspectors must meet the requirements below:

1862

1863 (a) Certified in accordance with American Welding Society (AWS), Certified Welding Inspector
1864 (CWI), qualified and certified in accordance with provisions of AWS QC1, Standard for AWS
1865 Certified Welding Inspector; or

1866

1867 (b) Welding inspectors qualified by the Canadian Welding Bureau (CWB) to Level II or the
1868 Level III requirements of the Canadian Standards Association Standard W 178.2 Certification of
1869 Welding Inspectors; or

1870

1871 (c) AWS Certified Associate Welding Inspector under the supervision of a CWI or a CWB Level
1872 III; or

1873

1874 (d) A welding inspector certification program that is substantially the same as offered by AWS
1875 or CWB. In this case, the inspector certification program must be reviewed and approved by a
1876 Government CWI or equivalent Quality Assurance Representative prior to approval; or

1877

1878 (e) Inspection performed by a Welding Engineer who is competent in the use of weld inspection
1879 techniques and equipment, on the basis of formal training, experience, or both, in metals
1880 fabrication, inspection, and testing. In this case, the rules that apply for experience as specified
1881 for a CWI will apply.

1882

1883 **E.1.5.2 Visual Weld Acceptance Criteria.** Prior to Nondestructive testing, all weld quality
1884 shall pass visual inspection in accordance with the applicable AWS code titled "Quality of
1885 Welds, Visual Inspection." The acceptance criteria differ based on the design loads. The
1886 contractor's design engineer shall state what joints are critical load-bearing members and clearly
1887 identify these weldments for inspection purposes. In the case of critical structures, the visual
1888 acceptance criteria for Bridges will be used as stated in AWS D1.1 and Class II structures for
1889 Aluminum welds in accordance with AWS D1.2.

1890

1891 **E.1.6 Nondestructive (NDT) Inspection.** The contractor shall clearly identify all critical joints
1892 required for NDT other than visual inspection. Procedures shall be made available upon request
1893 by the Government.

1894

1895 **E.1.6.1 Nondestructive Inspector.** When NDT is required, the NDT inspector shall be
1896 qualified in accordance with the current addition of American Society for Nondestructive Testing
1897 Recommended Practice No. SNT-TC-1A. Only individuals qualified for NDT LEVEL I and
1898 working under the NDT LEVEL II or individuals qualified for NDT LEVEL II may perform
1899 nondestructive testing except visual examination. The NDT personnel need not be an AWS
1900 CWI. The contractor shall make available all NDT personnel qualification records upon request
1901 by the Government.

1902

1903 **E.1.6.2 Nondestructive Testing Acceptance Criteria.** When NDT is required, the acceptance
1904 criteria shall be as stated in the applicable code. The acceptance criteria differ based on the
1905 design loads. The contractor shall state what joints are critical load bearing members and clearly
1906 identify these weldments for inspection purposes. In the case of critical structures, the acceptance
1907 criteria for Bridges will be used as stated in AWS D1.1 and Class II structures for Aluminum
1908 welds in accordance with AWS D1.2

1909

1910 **E.2 Inspection.** Government representatives shall be permitted to witness any and all
1911 examinations and tests performed by the contractor under this contract.

1912

1913 **E.3 Testing**

1914

1915 The contractor shall deliver up to three units for testing. First Article Test (FAT) shall consist of
1916 both a contractor FAT and a Government FAT. This test will be conducted in accordance with
1917 Section E & Section 4 of ATPD-2408. FAT approval, per FAR clauses 52.209-3 and 52.209-4,
1918 requires successful completion of both contractor and Government testing. The contractor's tests
1919 and inspections shall be conducted in accordance with Section 4, Table I of ATPD-2408, Section
1920 E.4 and FAR clause 52.209-3. The Government's tests and inspections shall be conducted in
1921 accordance with Section 4, Table II of ATPD-2408, and FAR 52.209-4. The First Article shall
1922 consist of up to three Heavy Cranes: two test units and one logistics units. The contractor shall
1923 ship the test units from its facility to the Government's test site and back at its own expense.

1924
1925
1926
1927
1928
1929
1930
1931
1932
1933
1934
1935
1936
1937
1938
1939
1940
1941
1942
1943
1944
1945
1946
1947
1948
1949
1950
1951
1952
1953
1954
1955
1956
1957
1958
1959
1960
1961
1962
1963
1964
1965
1966
1967
1968
1969

E.4 Contractor First Article Test

E.4.1 The contractor shall correct any deficiency detected during the contractor’s examination and testing prior to delivery of the vehicles to the Government test site(s) for the Government FAT at no cost to the Government. Government acceptance of the FAT vehicles for test shall not imply that the vehicles meet the performance requirements as specified in Section 3 of ATPD-2408. The requirement for the contractor to correct the deficiencies shall not excuse the contractor from meeting the required delivery schedule. The contractor shall not deliver any vehicle for Government FAT testing without successfully completing the above requirements.

E.4.2 In accordance with FAR 52.209-3, the contractor shall submit a FAT report. The report shall include actual test data, record of inspections, certifications and any other information necessary to prove the contractor portion of the FAT has been successful in accordance with Table I in Section 4 of ATPD-2408.

E.4.3 Certification Requirements

The contractor shall prepare certifications for items identified in the ATPD-2408. Certifications shall include all documentation, objective evidence, examinations and test results where applicable. Certification of compliance to specific contract and/or specification requirements shall be a statement to the effect that the contractor has complied. Subcontracting does not relieve the contractor of providing the required certification information from either the subcontractor or their manufacturers (or distributors). If any certification is unacceptable to the Government, the contractor shall conduct additional examinations and tests or provide additional documentation as required to validate the certification, at no increase in contract price. Provisions on acceptable certifications are identified in the purchase description.

E.4.4 First Article Shipment

Under no circumstances shall any test system be shipped from the contractor’s facility to the test site until: (a) A complete inspection has been performed by Government personnel; and (b) All deficiencies revealed by the Government inspection have been corrected by the contractor and approved by the Government.

E.5 Government First Article Test.

E.5.1 The Government FAT will be in accordance with Section 4, Table II of ATPD-2408.

E.5.2 If the system fails the Government FAT, the contractor shall make all necessary changes to the failed system or select additional systems for retesting. All costs related to retesting are to be borne by the contractor. The Government reserves the right to require an equitable adjustment of the contract price for any extension of the delivery schedule, or for any additional cost to the Government related to retesting.

E.5.3 The contractor shall produce both the first article test and production systems at the same facility.

1970 **E. 6 Quality Conformance Inspection.**

1971
1972 The contractor shall perform a Quality Conformance Inspection on each production vehicle to
1973 ensure the item meets specification requirements prior to acceptance by the Government. Quality
1974 Conformance Inspection shall include all examinations and tests identified in ATPD-2408, Table
1975 III, Quality Conformance Testing & Examinations for Production Vehicles. Inspection records
1976 shall include a description of the inspection procedure, sequence of inspections, vehicle
1977 identified by unique identification number, date of inspection, and clear indication that the
1978 vehicle passed or failed inspection. If failed, a detailed note shall be added to the Inspection
1979 record by the contractor fully describing all actions taken to correct the failure. The contractor
1980 shall then repeat the previously failed Quality Conformance inspection procedure and document
1981 the results on the Inspection record. Quality Conformance Inspection records shall be provided
1982 to the Government in the form of a Final Inspection Report (FIR) in accordance with **CDRL**
1983 **A052**-Final Inspection Report (FIR).

1984
1985 **E.7 MANUFACTURING STANDARD**

1986
1987 Notwithstanding the language at FAR 52.209-3, the contractor shall keep a representative testing
1988 vehicle at the manufacturing facility as a manufacturing standard. The contractor shall maintain
1989 the vehicle in a serviceable condition and representative of the approved product configuration
1990 baseline for the time it is used as a manufacturing standard and it shall be the last item shipped
1991 on the contract. A representative testing vehicle is one that has the most current updates,
1992 modifications or changes.

1993
1994 **E.8 FOLLOW-ON PRODUCTION TEST (FPT)**

1995
1996 **E.8.1** The Government may select any production vehicle(s) for test at any time during the
1997 contract production period and subject this test vehicle(s) to any and all examinations and tests
1998 specified in ATPD-2408, paragraph 4. The Government will perform the examinations and tests
1999 at a site selected by the Government. The Government will select the test vehicle(s) at random
2000 from those that have been accepted by the Government but will not include the previously
2001 accepted FAT vehicles.

2002
2003 **E.8.2** Failure of the inspection comparison test vehicle(s) to meet any requirements specified
2004 shall be cause for rejection of the FPT vehicle(s) and may be cause for the Government to refuse
2005 to continue acceptance of production vehicles until sufficient evidence has been provided by the
2006 contractor that acceptable corrective action has been taken to eliminate the deficiency. The
2007 failure(s) shall be documented in a Production Quality Deficiency Report (PQDR). The
2008 contractor shall correct deficiencies in subsequent production units at no increase to the contract
2009 price.

2010
2011 **E.8.3** During the period of testing, the contractor shall be liable to replace F.O.B. at the test site,
2012 those parts which fail to satisfactorily perform their function during test. If the contractor fails to
2013 furnish parts within 48 hours after notification, the failure may be cause for refusal by the
2014 Government to continue acceptance of production units.

2015

2016 **E.8.4** The FPT vehicle(s) which successfully complete the test(s), may be returned to the
2017 contractor's plant, at Government transportation expense, for refurbishing by the contractor. The
2018 cost of refurbishing the vehicle(s) shall be negotiated and agreed to by the parties.
2019

2020 **E.9 DEFINITION OF FAILURE**
2021

2022 **E.9.1** Failure for the purpose of First Article Testing (FAT) is defined as any incident resulting
2023 in:

- 2024
- 2025 (1) Inability of the end item to meet all requirements of Section 3 of ATPD-2408, Attachment 1;
 - 2026 or
 - 2027
 - 2028 (2) Any item, part, assembly, or subassembly on the end item that does not function or operate as
 - 2029 it is designed or intended; or
 - 2030
 - 2031 (3) Damage to the item by continued operation not chargeable to operator error; or
 - 2032
 - 2033 (4) Personnel safety hazard; or
 - 2034
 - 2035 (5) Reduced item performance or interruption of test.
 - 2036

2037 **E.9.2** A deficiency is defined as a condition that lacks an essential quality or element and may
2038 be used synonymously as a failure.
2039

2040 **E.9.3** In the event of a vehicle/component test failure, the Government reserves the right to have
2041 the contractor retest the vehicle/component upon correction of the failure by the contractor to the
2042 complete extent and duration specified in the test program, or to such lesser extent as the PCO
2043 shall consider appropriate in his/her sole discretion. The contractor shall be responsible for
2044 delays in the program test period resulting from vehicle/component failures and for failing to
2045 adequately or timely furnish parts support. The Government shall have the right to extend the
2046 specified program test period accordingly at no increase in contract price.
2047

2048 **E.9.4** The contractor, when directed by the PCO or COR, shall correct on-site any failure of the
2049 system, which occurs during testing. Delays caused by defective test items shall not be a basis
2050 for adjustment of the contract delivery schedule or the contract price.
2051

2052 **E.9.5** Failures found during or as a result of FAT testing shall be prima-facie evidence that all
2053 vehicles/components already produced prior to completion of FAT testing are similarly deficient.
2054 Such deficiencies on all vehicles/components shall be corrected by the contractor at no additional
2055 cost to the Government. Failure for the purpose of FAT testing is defined as any incident
2056 resulting in noncompliance with applicable specification performance requirements, or reduced
2057 item performance or interruption of test.
2058

2059 **E.10 Refurbishment.** After successful completion of both Contractor FAT and Government
2060 FAT, the contractor shall transport the test vehicles from the test site and its facility or the
2061 logistics subcontractor's facility (as applicable) to the contractor's plant at the contractor's

TYPE II HEAVY CRANE: RFP NARRATIVES

2062 expense. The contractor shall thoroughly inspect the vehicles and submit a proposal to make
2063 whatever repairs are necessary to return them to like new condition. The refurbishment effort
2064 will not include any configuration changes required as a result of testing. These changes are the
2065 contractor's responsibility pursuant to the testing provisions set forth in section E of the contract.
2066

DRAFT

2067 **SECTION F: DELIVERIES OR PERFORMANCE**

2068

2069 **F.1 DELIVERY SCHEDULE FOR PRODUCTION VEHICLES**

2070

2071 (1) For all delivery orders which are issued prior to Government approval of FAT vehicles,
2072 delivery of production vehicles will begin 180 calendar days after FAT approval, unless
2073 otherwise negotiated by the parties.

2074

2075 (2) For any delivery order which is issued after the Government approval of FAT, deliveries
2076 shall start 180 calendar days after the delivery order is issued if the contractor has completed
2077 deliveries on all previous delivery orders. If the contractor has not completed deliveries on all
2078 previous delivery orders, delivery shall begin at the end of the last order. It is estimated that no
2079 less than 1 each and no more than 10 each vehicles shall be delivered monthly.

2080

2081 (3) Unless otherwise agreed at delivery order issuance, quantity limitations shall be in
2082 accordance with clause 52.216-19, Order Limitations.

2083

2084 (4) Acceleration of delivery orders is NOT acceptable without written approval from the
2085 Contracting Officer.

2086

2087 **F.2 DEFINITION OF DAC**

2088 For all data and hardware deliveries, "Days After Contract Award (DAC)", applies to the date
2089 specific delivery orders are awarded, not the date the basic contract is awarded. For example, if
2090 we issue a delivery order six months after the basic contract is awarded, the PVT vehicles and
2091 the associated data are due according to the timeframe established in the contract, starting at the
2092 date of the delivery order.

2093

2094 **F.3 Heavy Crane STORAGE:**

2095

2096 (1) The Government may require the contractor to store and maintain the Heavy Crane's that the
2097 Government has shipped in place. Shipped in place means the Heavy Crane's remain at the
2098 contractor's facility waiting for Government authorization to transport to the assigned
2099 destination. The Government has already inspected and conditionally accepted the Heavy
2100 Crane's. The contractor shall take the Heavy Crane to the storage location, place it in storage and
2101 complete any re-inspection that may be required during storage.

2102

2103 (2) This storage requirement applies for up to 60 calendar days after acceptance of the Heavy
2104 Crane 's. Should the Heavy Crane remain in storage beyond the initial 60 calendar days, the
2105 contractor shall receive an additional storage fee based upon a daily storage rate per Heavy
2106 Crane per day on a Firm Fixed Price basis.

2107

2108 (3) The contractor shall maintain the Heavy Crane's in accordance with its standard commercial
2109 procedures to preclude deterioration of the Heavy Crane's and all of their components. The
2110 contractor shall submit the procedures for storage to the PCO no later than 180 DAC and
2111 maintain a log for all Heavy Crane's placed in storage. The log shall include: the Heavy Crane
2112 serial number, the date it was placed in storage, the dates maintenance and exercise are

TYPE II HEAVY CRANE: RFP NARRATIVES

2113 performed, deficiencies detected during the post-storage examination, and the date the Heavy
2114 Crane is removed from storage. The contractor shall make the log available to the Government
2115 upon request.

2116

2117 (4) The Government may re-examine the stored Heavy Crane's prior to shipment and the
2118 contractor shall perform the run-in tests in accordance with ATPD-2408. The Government may
2119 perform a visual examination of the Heavy Crane's for deterioration, damaged parts, and
2120 evidence of mechanical problems. The contractor shall correct all deficiencies detected during
2121 the re-examination at its own expense. The provisions of the contract entitled Government
2122 Property Fixed Price shall apply to this and all Government property while in possession of the
2123 contractor.

2124

2125 (5) The contractor shall remove the Heavy Cranes from storage and ship them in the same
2126 chronological order that they were placed in storage (i.e., first in, first out). Heavy Crane 's shall
2127 be prepared for shipment at the level of preservation stipulated in the delivery order and
2128 developed in compliance with section C.

2129

2130 (6) If the contractor must store Heavy Crane 's because of its failure to provide timely and
2131 accurate logistic data and LMI requirements, or for any other reason that is not the Governments
2132 fault, the contractor shall store the Heavy Crane 's at no cost to the Government.

2133

2134

DRAFT

2135 **SECTION H: SPECIAL CONTRACT REQUIREMENTS**

2136

2137 **H.1 Ordering Year**

2138

2139 For purpose of defining ordering year the first ordering year begins with the date of award of this
2140 contract. The remaining ordering years commence on the anniversary date of the initial contract
2141 award.

2142

2143 **H.2 Other Customers**

2144

2145 This contract is for requirements that come through the Department of the Army. Though, the
2146 Government may use this contract to fill requirements for other Government agencies or Foreign
2147 Military Sales (FMS) customers. However, these other customers are not required to use this
2148 contract to fill their requirements.

2149

2150 **H.3 Export Control Notice**

2151

2152 Technical data may be subject to the requirements of various export control statutes, regulations,
2153 etc. including but not limited to the International Traffic in Arms Regulations (ITAR) and the
2154 Export Administration Regulations (EAR). Accordingly the contractor is hereby notified that it
2155 must carefully consider if and how to comply with applicable export control requirements before
2156 conveying (in any manner, including but not limited to verbal, electronic, or hard copy
2157 transmission) technical data to any foreign national, whether or not such foreign national is
2158 employed by the contractor.

2159

2160 **H.4 Contractor Responsibility for Timely Delivery of Logistics Data**

2161

2162 Acceptance of hardware end items will not proceed until the Contractor fully complies with all
2163 logistics data requirements under the contract necessary to complete a full AR 700-142 Material
2164 Release. The Contracting Officer has the unilateral right to extend the Heavy Crane delivery
2165 schedule of the Heavy Crane at no additional cost to the Government by the period equal to any
2166 delay in delivery of logistics data or information. During this delay period, the contractor shall
2167 store all Heavy Cranes produced at no additional cost to the Government.

2168

2169 **H.6 Government Furnished Equipment**

2170

2171 **H.6.1 Government Furnished Equipment/Materials:** The prime contractor is responsible to
2172 return all USG furnished equipment, as defined in Federal Acquisition Regulation (FAR) Part
2173 45, clauses 52.245-1, 52.245-2, and 52.245-5, if included in the contract. Prime contractors who
2174 are not in compliance with the FAR, Defense Federal Acquisition Regulation Supplement,
2175 Department of Defense Directives and Instructions, policies, or procedures will be responsible
2176 and liable for damages to the Government property. A joint inventory shall be conducted of the
2177 equipment by the prime contractor, USG representative, and the Contracting Officer or their
2178 representative, within 10 calendar days after the end of the contract performance period. The
2179 prime contractor shall report lost, damaged or destroyed property immediately to the Contracting
2180 Officer, but no later than the joint inventory at the end of the contract period. If the prime

TYPE II HEAVY CRANE: RFP NARRATIVES

2181 contractor fails to report lost, damaged or destroyed equipment or materials during the contract
2182 performance period, the prime contractor shall be responsible for the replacement and/or repair
2183 of the equipment or materials. The replaced equipment shall be new, of the same quality, and
2184 shall perform at the same functional level as the missing piece of equipment. If the prime
2185 contractor fails to repair and/or replace damaged or missing equipment, the final payment shall
2186 be reduced by the appropriate amount of the specified damages or cost to replace missing
2187 equipment with new.

2188

2189 **H.6.2** The Government will provide the contractor applicable GFE to support testing and
2190 logistics support package development. This GFE may consist of applicable NBC protective
2191 ensemble, extended cold weather clothing system, standard Army tool kits, and Army test,
2192 measurement and diagnostic equipment (TMDE). Refer to **Attachment 0027**-GFP/GFE for
2193 detailed listing of GFP/GFE items to be provided by the Government.

2194

2195 **H.7 Non-road Equipment Engine Emissions Requirements.**

2196 Environmental Protection Agency (EPA)'s Tier IV non-road exhaust emission standards require
2197 the engine manufacturers to use pollution control technologies, to include but not limited to
2198 exhaust gas recirculation (EGR), catalytic converts, NOX absorbers. These pollution control
2199 technologies are sensitive to fuel sulfur above 15 ppm and therefore are not compatible with
2200 military fuels such as JP-8/JP-5 that allow up to 3,000 ppm sulfur. Therefore, no vehicles
2201 delivered under this contract shall utilize Tier IV engines. EPA has granted TACOM LCMC a
2202 National Security Exemption (NSE) from the Tier IV standards for all non-road, armored
2203 equipment, which extends to the contractor producing the Heavy Crane. Refer to paragraph
2204 3.3.22 of ATPD-2408 for specific emissions requirements for the system under this contract.