

# JAGM

## UNITIZATION PROCEDURES FOR GUIDED MISSILES, PACKED ONE PER METAL CONTAINER, UNITIZED 6 CONTAINERS PER 4-WAY ENTRY PALLET

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### U.S. ARMY MATERIEL COMMAND DRAWING

<p style="text-align: center;">APPROVED, U.S. ARMY AVIATION AND MISSILE COMMAND</p> <p>OCONNOR.DOUGL AS.LEO.114058225 1</p> <p style="font-size: small;">Digitally signed by OCONNOR.DOUGLAS.LEO.114 0582251 Date: 2020.03.05 09:10:30 -06'00'</p>	<p><b>CAUTION: VERIFY PRIOR TO USE AT <a href="https://www.dau.edu/cop/ammo/Pages/Default.aspx">https://www.dau.edu/cop/ammo/Pages/Default.aspx</a> THAT THIS IS THE MOST CURRENT VERSION OF THIS DOCUMENT. THIS IS PAGE 1 OF 4.</b></p>															
<p style="text-align: center;">APPROVED BY ORDER OF COMMANDING GENERAL, U.S. ARMY MATERIEL COMMAND</p> <p>SMITH.THERESA. ANN.1009147639</p> <p style="font-size: small;">Digitally signed by SMITH.THERESA.ANN.1009147 639 Date: 2020.03.05 11:25:56 -06'00'</p> <p style="text-align: center;">U.S. ARMY DEFENSE AMMUNITION CENTER</p>	<p><b>DO NOT SCALE</b></p>	<p><b>FEBRUARY 2020</b></p>														
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">DESIGN ENGINEER</td> <td style="width: 15%; text-align: center;">BASIC REV.</td> <td colspan="2" style="text-align: center;">QUYEN TRAN</td> </tr> </table>	DESIGN ENGINEER	BASIC REV.	QUYEN TRAN												
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<p style="text-align: center;">ENGINEERING DIVISION</p> <p style="text-align: center;">TEST ENGINEER</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">TEST REPORT</td> <td style="width: 15%; text-align: center;">NA</td> <td colspan="2"></td> </tr> </table> <p style="text-align: center;">EXPLOSIVE SAFETY DIRECTORATE</p>	TEST REPORT	NA			<p>FIEFFER.LAUR A.A.1230375727</p> <p style="font-size: small;">Digitally signed by FIEFFER.LAURA.A.1230375727 Date: 2020.03.03 09:39:32 -06'00'</p> <p>FELICIANO.AD IN.1259200373</p> <p style="font-size: small;">Digitally signed by FELICIANO.ADIN.1259200373 Date: 2020.03.03 09:46:01 -06'00'</p> <p>THOMAS.CARL.ANT HONY.1104621372</p> <p style="font-size: small;">Digitally signed by THOMAS.CARL.ANTHONY.11046 21372 Date: 2020.03.03 10:20:29 -06'00'</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">CLASS</td> <td style="width: 15%;">DIVISION</td> <td style="width: 15%;">DRAWING</td> <td style="width: 15%;">FILE</td> </tr> <tr> <td style="text-align: center;">19</td> <td style="text-align: center;">48</td> <td style="text-align: center;">5284</td> <td style="text-align: center;">GM20JG1</td> </tr> </table>	CLASS	DIVISION	DRAWING	FILE	19	48	5284	GM20JG1		
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## GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AR 740-1 AND AUGMENTS TM 743-200-1 (CHAPTER 5).
- B. FOR DETAILS OF THE JAGM SHIPPING AND STORAGE CONTAINER, SEE U.S. ARMY AVIATION AND MISSILE COMMAND DRAWING NO. 13703971 AND 13556595.
- CONTAINER DIMENSIONS ----- 84" L X 14-5/8" W X 15-1/2" H\*  
CONTAINER GROSS WEIGHT ----- 210.5 LBS (APPROX)  
CONTAINER CUBE ----- 11.001 CU FT (APPROX)
- \*THE 15-1/2" HEIGHT DIMENSION DOES NOT INCLUDE THE HEIGHT OF THE INTERLOCK PIN.
- C. **CAUTION:** THIS ITEM IS IN A "PROPULSIVE STATE" AND MUST BE LOADED ON THE PALLET WITH THE FORWARD END OF ALL CONTAINERS FACING IN ONE DIRECTION.
- D. THE FOLLOWING AMC DRAWINGS ARE APPLICABLE FOR OUTLOADING AND STORAGE OF THE ITEMS COVERED BY THIS DRAWING.
- BOXCAR ----- 19-48-8251-GM5JG1  
VAN TRAILER ----- 19-48-8256-GM11JG1  
STORAGE ----- 19-48-5285-GM1-3-4-14-22JG1  
END OPENING ISO CONTAINER ----- 19-48-8252-GM15JG1  
MILVAN ----- 19-48-8253-GM15JG2  
SIDE OPENING ISO CONTAINER ----- 19-48-8254-GM15JG3  
TACTICAL VEHICLE ----- 19-48-8255-GM17JG1
- E. DIMENSIONS, CUBE AND WEIGHT OF A PALLET UNIT WILL VARY SLIGHTLY DEPENDING UPON THE ACTUAL DIMENSIONS OF THE CONTAINERS AND THE WEIGHT OF THE SPECIFIC ITEM BEING UNITIZED.
- F. DIMENSIONAL LUMBER SPECIFIED THROUGHOUT THIS PROCEDURAL DRAWING IS OF A NOMINAL SIZE, UNLESS OTHERWISE SPECIFIED. FOR EXAMPLE, 1" X 4" MATERIAL IS ACTUALLY 3/4" THICK BY 3-1/2" WIDE AND 2" X 4" MATERIAL IS ACTUALLY 1-1/2" THICK BY 3-1/2" WIDE.
- G. CONVERSION TO METRIC EQUIVALENTS: DIMENSIONS WITHIN THIS DOCUMENT ARE EXPRESSED IN INCHES AND WEIGHTS ARE EXPRESSED IN POUNDS. WHEN NECESSARY, THE METRIC EQUIVALENTS MAY BE COMPUTED ON THE BASIS OF ONE INCH EQUALS 25.4MM AND ONE POUND EQUALS 0.454 KG.
- H. UNLESS OTHERWISE SPECIFIED, A PLUS OR MINUS 1/4" IS ALLOWED ON OVERALL DIMENSIONS OF ANY DUNNAGE ASSEMBLY. HOWEVER, SIMILAR PIECES IN AN ASSEMBLY MUST BE WITHIN 1/8" OF THE SAME DIMENSION.
- J. WHEN ASSEMBLING A COMPLETE PALLET UNIT, CARE SHALL BE TAKEN TO INSURE THAT THE CONTAINERS AND ASSEMBLIES ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY SO THAT THE SIDES AND ENDS OF THE PALLET UNIT DO NOT EXCEED A 1/2" TOLERANCE, AND THAT THE CONTAINER INTERLOCKS PROPERLY ENGAGE.
- K. IN ORDER TO OBTAIN COMPACT (SOUND) UNITS, ALL STRAPS SHALL BE LOCATED IN PROPER ALIGNMENT AND TENSIONED UNTIL THEY CUT INTO THE PALLET DECK. AFTER TENSIONING, EACH STRAP WILL BE SECURED USING ONE SEAL AND TWO PAIR OF NOTCHES PER SEAL. ALL STRAPPING MUST BE STRAIGHT WITHIN 2" ON ANY SURFACE OF THE UNITIZED LOAD; I.E., TOP, BOTTOM, SIDES OR END THAT IT ENCOMPASSES.

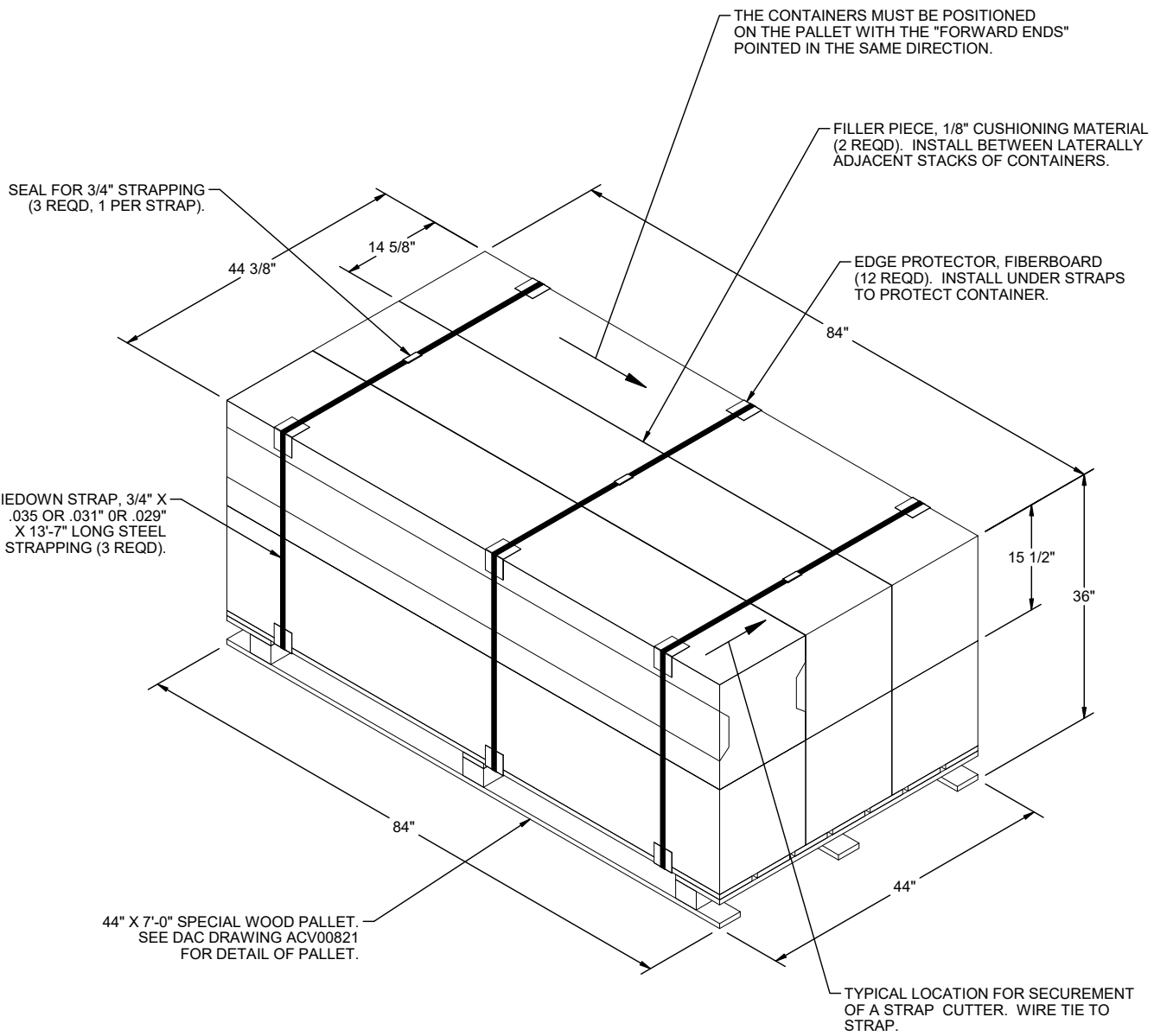
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## (GENERAL NOTES CONTINUED)

- L. WHEN APPLYING ANY STRAP, CARE MUST BE EXERCISED TO ASSURE THAT THE END OF THE STRAP ON THE UNDERSIDE OF THE JOINT EXTENDS AT LEAST 6" BEYOND THE SEAL. THIS EXTRA MINIMUM LENGTH OF STRAP IS REQUIRED TO PERMIT SUBSEQUENT TIGHTENING OF LOOSENED STRAPPING. RETENSIONING CAN BE ACCOMPLISHED WITHOUT REPLACING STRAPPING OR SPLICING STRAPPING THROUGH THE USE OF A MANUAL OR PNEUMATIC FEEDWHEEL TYPE TENSIONING TOOL AND THE APPLICATION OF ONE ADDITIONAL SEAL.
- M. IF STRAP CUTTERS ARE SPECIFICALLY REQUIRED BY THE PROCURING ACTIVITY, REFER TO DARCOM DRAWING 19-48-4127-20P1000 FOR APPROPRIATE MEANS OF SECUREMENT TO THE PALLET UNIT.
- N. IF LESS THAN SIX CONTAINERS ARE TO BE LOADED ON A PALLET, IT MAY BE ACCOMPLISHED BY SUBSTITUTING FILLER ASSEMBLIES, AS DEPICTED ON PAGE 4 FOR ONE OR TWO OMITTED CONTAINERS. HOWEVER, IF MORE THAN TWO CONTAINERS ARE TO BE OMITTED, A COMPLETE LAYER OF CONTAINERS MUST BE OMITTED. FOR A FIVE CONTAINER LOAD, POSITION A FILLER ASSEMBLY IN THE CENTER OF THE TOP LAYER. FOR A FOUR CONTAINER LOAD, POSITION TWO FILLER ASSEMBLIES IN THE CENTER OF THE TOP AND BOTTOM LAYERS. FOR A THREE CONTAINER LOAD, ELIMINATE THE TOP LAYER. FOR A TWO CONTAINER LOAD, ELIMINATE THE TOP LAYER AND POSITION A FILLER ASSEMBLY IN THE CENTER OF THE SINGLE LAYER. FOR A ONE CONTAINER LOAD, ELIMINATE THE TOP LAYER AND POSITION TWO FILLER ASSEMBLIES ON THE OUTER EDGES OF THE LAYER. **NOTE:** EMPTY OR REJECT CONTAINERS MAY BE USED IN PLACE OF FILLER ASSEMBLIES AS NECESSARY. WHEN (EMPTY) FILLER CONTAINERS ARE USED IN PLACE OF OMITTED CONTAINERS TO COMPLETELY FILL OUT A LAYER ON A PALLET, THEY WILL BE MARKED AS SPECIFIED IN ARDEC DRAWING NO. 12982865.
- O. UNIT LOADS MUST ONLY BE MADE UP WITH FULL LAYERS. FOR REDUCED QUANTITIES IN A UNIT LOAD REFER TO GENERAL NOTE "N" ABOVE. ONLY ONE UNIT LOAD HAVING A REDUCED QUANTITY OF ITEMS SHOULD BE PERMITTED PER LOT OF THAT ITEM. CARE SHALL BE TAKEN TO INSURE THAT "REDUCED-QUANTITY" UNITS ARE EVENLY ALIGNED HORIZONTALLY AND VERTICALLY AS SPECIFIED IN GENERAL NOTE "J" AT LEFT.
- P. ALL WOODEN DUNNAGE USED IN UNIT LOADS SHALL BE TREATED WITH EITHER TYPE I OR TYPE III WOOD PRESERVATIVE, IN ACCORDANCE WITH ARDEC DRAWING 13064136. IF THE DUNNAGE CONSISTS OF MORE THAN ONE COMPONENT, IT MUST BE ASSEMBLED PRIOR TO TREATMENT. PRESERVATIVE MARKING SHALL BE APPLIED TO AT LEAST ONE LOCATION ON THE ASSEMBLY OR COMPONENT, NAD ON THE OUTER FACE OF A CENTER POST OF THE PALLET IN ACCORDANCE WITH PARAGRAPH 3.3.6 OF ARDEC DRAWING 13064136.
- Q. ALL NON-MANUFACTURED WOOD USED IN THE UNIT LOAD WILL BE HEAT TREATED AND MARKED TO SHOW CONFORMANCE TO THE INTERNATIONAL PLANT PROTECTION CONVENTION STANDARD (IPPC), ISPM-15. SEE DAC DRAWING ACV00831 FOR ISPM-15 CERTIFICATION MARKING AND PLACEMENT DETAILS.

## MATERIAL SPECIFICATIONS

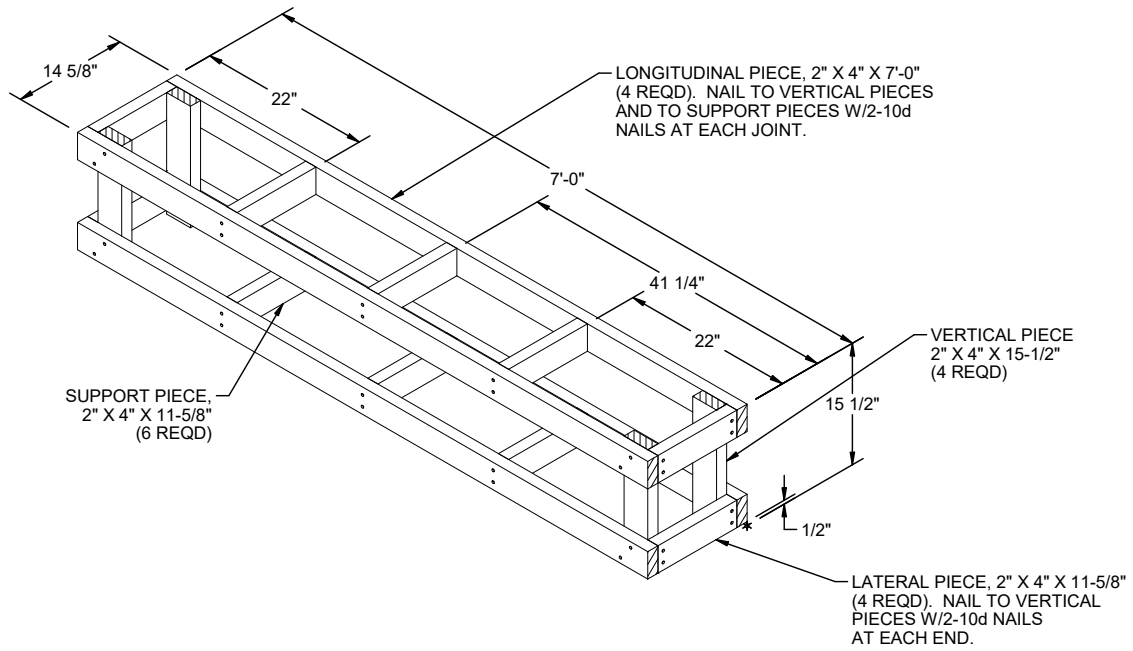
- PALLET, SPECIAL - - -: SPECIAL 4-WAY ENTRY, PRESERVATIVE AND HEAT TREATED, PART NUMBERS ACV00821. SEE GENERAL NOTES "P" AND "Q" ABOVE.
- LUMBER - - - - - -: SEE TM 743-200-1 (DUNNAGE LUMBER) AND VOLUNTARY PRODUCT STANDARD PS 20.
- NAILS - - - - - -: ASTM F1667; COMMON STEEL NAIL (NLCMS OR NLCMMS).
- STRAPPING, STEEL - -: ASTM D3953; FLAT STRAPPING, TYPE 1, HEAVY DUTY, FINISH B (GRADE 2).
- SEAL, STRAP - - - - -: ASTM D3953; CLASS H, FINISH A, B (GRADE2), OR C, DOUBLE NOTCH TYPE, STYLE I, II, III, OR IV.
- CUSHIONING MATERIAL - -: FED SPEC PP-C-1797, TYPE I.
- FIBERBOARD - - - - -: ASTM D4727; TYPE SF, CLASS WEATHER RESISTANT, GRADE W55.



**PALLET UNIT**

6 EACH JAGM IN CONTAINERS @ 210.5 LBS	-----	1,263 LBS (APPROX)
DUNNAGE	-----	4 LBS
PALLET	-----	90 LBS
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TOTAL WEIGHT	-----	1,357 LBS (APPROX)
CUBE	-----	77.7 CU FT (APPROX)

BILL OF MATERIAL				
PALLET, 44" X 7'-0"	-----	1 REQD	-----	90 LBS
STEEL STRAPPING, 3/4"	-----	41' REQD	-----	3.75 LBS
SEAL FOR 3/4" STRAPPING	-----	3 REQD	-----	NIL
CUSHIONING MATERIAL	-----	2 REQD	-----	NIL
FIBERBOARD, EDGE PROTECTOR	-----	12 REQD	-----	NIL



**FILLER ASSEMBLY**

(FOR MINUS ONE CONTAINER)