

HAWK

LOADING, TIEDOWN, AND UNLOADING PROCEDURES FOR THE SHIPMENT OF ANTENNA[⊕], PULSE ACQUISITION RADAR, AN/MPQ-35 AND/OR AN/MPQ-50, IN/ON TACTICAL VEHICLES

THIS DRAWING IS APPLICABLE TO THE
FOLLOWING TACTICAL VEHICLES:

VEHICLE	SHOWN ON PAGE(S)
2½ TON CARGO TRUCK-----	3
5 TON CARGO TRUCK-----	4
12 TON STAKE SEMITRAILER-----	5,6

⊕ ANTENNA SECURED WITHIN THREE(3) SPECIAL TUBULAR
FRAME CONTAINERS. THIS PROCEDURE DRAWING IS ONLY
APPLICABLE TO PACKAGED ANTENNA COMPONENTS.

CAUTION:
REFER TO THE GENERAL NOTES AND PROCEDURES ON
PAGE 2 PRIOR TO OPERATIONS.

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REVISIONS			APPROVED <i>Andrew W. Heid</i>
1	MAY 71	<i>John E. Johnson</i>	ARMY MISSILE COMMAND
			APPROVED BY <i>John E. Johnson</i>
			COMMANDER, ARMY MATERIEL COMMAND
			ARMY SUPPLY & MAINTENANCE COMMAND
			MATERIEL COMMAND U.S.A.
			8 NOVEMBER 1963
			CLASS DIVISION DRAWING FILE
			19 48 7513 GSE 17 HA4 TACTICAL

DO NOT SCALE

GENERAL NOTES

- A. THIS DOCUMENT HAS BEEN PREPARED AND ISSUED IN ACCORDANCE WITH AMCR 740-13.
- B. THIS DRAWING COVERS PROCEDURES APPLICABLE TO THE TRANSPORT OF THE ANTENNA, PULSE ACQUISITION RADAR, AN/MPQ-35 AND/OR AN/MPQ-50, IN/ON TACTICAL VEHICLES. IF OTHER TYPES OF CARGO ITEMS ARE TRANSPORTED WITH THAT SHOWN, THE TOTAL LOAD MUST BE COMPATIBLE AND THE ADDED ITEMS MUST BE SECURED WITH WEB STRAP ASSEMBLIES, AS REQUIRED TO PREVENT DISPLACEMENT DURING TRANSPORTATION.
- C. THE DEPICTED PROCEDURES APPLY TO THE TACTICAL VEHICLES DESIGNATED HEREIN, MODIFIED TO INCLUDE THE UNIVERSALLY APPLICABLE "TIEDOWN KIT" CONSISTING OF TIEDOWN FITTINGS IN THE CARGO BED AND WEB STRAP TIEDOWN ASSEMBLIES.
- D. THE LOAD, WHENEVER POSSIBLE, SHOULD BE CENTERED LATERALLY IN THE TRUCK OR ON THE TRAILER IN ORDER TO PROVIDE EQUAL ANGLE HOLD DOWN BY WEB STRAPS. LOCATE THE LADING LENGTHWISE IN/ON THE VEHICLE AS SHOWN TO PROVIDE FOR PROPER TIEDOWN.
- E. ALL WEB STRAP TIEDOWN ASSEMBLIES WILL BE SECURELY HOOKED INTO THE TIEDOWN FITTINGS AND FIRMLY TENSIONED. SCUFF SLEEVES PROVIDED ON WEB STRAP ASSEMBLIES WILL BE LOCATED TO PROVIDE A PAD WHERE STRAPS PASS OVER SHARP EDGES. EXERCISE CARE IN STRAP APPLICATION; AVOID TWISTS IN THE STRAPS AND INSURE A STRAIGHT LAY OF THE STRAP ON THE TAKE-UP SPOOL OF THE RATCHET WHEN TENSIONING. TIE BACK LOOSE ENDS OF THE STRAP. A TENSIONED STRAP MUST FORM AT LEAST ONE WRAP ON THE TAKE-UP SPOOL OF THE RATCHET. **CAUTION:** DO NOT HOOK MORE THAN ONE STRAP ASSEMBLY TO ANY ONE TIEDOWN FITTING.
- F. DETAILS OF ITEMS:
- | ITEM | WEIGHT (APPROX) | DIMENSIONS |
|-------------------------|-----------------|--|
| ANTENNA REFLECTOR CNTRS | | |
| (LEFT) ----- | 350 LBS ----- | 69" LONG X 66" WIDE X
55-3/8" HIGH. |
| (RIGHT) ----- | 240 LBS ----- | 58" LONG X 65-5/8" WIDE X
69-1/4" HIGH. |
| (CENTER) ----- | 117 LBS ----- | 69" LONG X 66" WIDE X
32-1/4" HIGH. |
- G. IF THE SEMITRAILER SIDE RACKS ARE TO BE TRANSPORTED ON THE TRAILER, THEY WILL BE STACKED IN ANY AVAILABLE AREA AND SECURED WITH A SUFFICIENT QUANTITY OF WEB STRAP TIEDOWN ASSEMBLIES TO PREVENT LOSS DURING TRANSPORT. IF THE BOWS AND CANVAS COVER ARE TO BE TRANSPORTED ON THE TRUCK AND THEY CANNOT BE POSITIONED OR STOWED IN THE NORMAL MANNER, THEY WILL BE LOADED WITHIN THE CARGO BODY AND SECURED WITH A SUFFICIENT QUANTITY OF WEB STRAP TIEDOWN ASSEMBLIES TO PREVENT THEIR LOSS OR DAMAGE TO THE LADING DURING TRANSPORT.
- H. ONLY THE CARGO BODIES OR BEDS OF THE TACTICAL VEHICLES HAVE BEEN SHOWN HEREIN, TO PREVENT DISTRACTION FROM THE DELINEATED LOADING AND TIEDOWN PROCEDURES, AND ARE SHOWN IN OUTLINE FORM WITH STRUCTURAL PORTIONS OMITTED, AS NECESSARY, TO IMPROVE CLARITY OF THE DEPICTED PROCEDURES.
- J. WHEN ONE WEB STRAP TIEDOWN ASSEMBLY IS NOT LONG ENOUGH TO SPAN THE DISTANCE DEPICTED, TWO ASSEMBLIES MAY BE HOOKED TOGETHER TO GAIN NECESSARY LENGTH.
- K. EXCEPT FOR THE LOAD ON PAGE 6, THE PROCEDURES HEREIN HAVE ONLY BEEN SPECIFIED FOR ONLY ONE (1) EACH OF THE THREE (3) DIFFERENT LADING ITEMS PER TRANSPORTING VEHICLE; HOWEVER, GREATER QUANTITIES OF ONE OR MORE OF THE ITEMS CAN BE TRANSPORTED IN/ON ANY ONE VEHICLE, IF CARGO SPACE PERMITS. THE ADDITIONAL ITEMS MUST BE POSITIONED (RELATIVE TO TIEDOWN "FITTINGS") IN A MANNER SIMILAR TO THAT SHOWN FOR EACH INDIVIDUAL ITEM AND TIED DOWN IN ACCORDANCE WITH THE DELINEATED PROCEDURES. LIKEWISE, IT IS PERMISSIBLE TO OUTLOAD COMPLETE LOADS OF ANY ONE OF THE THREE DEPICTED ITEMS.
- L. THE DEPICTED PROCEDURES ARE ALSO APPLICABLE FOR THE TRANSPORT OF ANTENNA REFLECTOR CONTAINERS WHICH MAY VARY IN SIZE FROM THE DIMENSIONS INDICATED IN GENERAL NOTE "F". ADJUST LOCATING DIMENSIONS AS NECESSARY TO ALIGN CONTAINERS WITH TIEDOWN FITTINGS AND/OR LOAD ANCHOR POINTS.

REVISIONS

REVISION NO. 1, DATED MAY 1971, CONSISTS OF:

1. INCLUDING THE AN/MPQ-60 RADAR SET.
2. UPDATING THE DRAWING FORMAT.
3. UPDATING THE GENERAL NOTES.

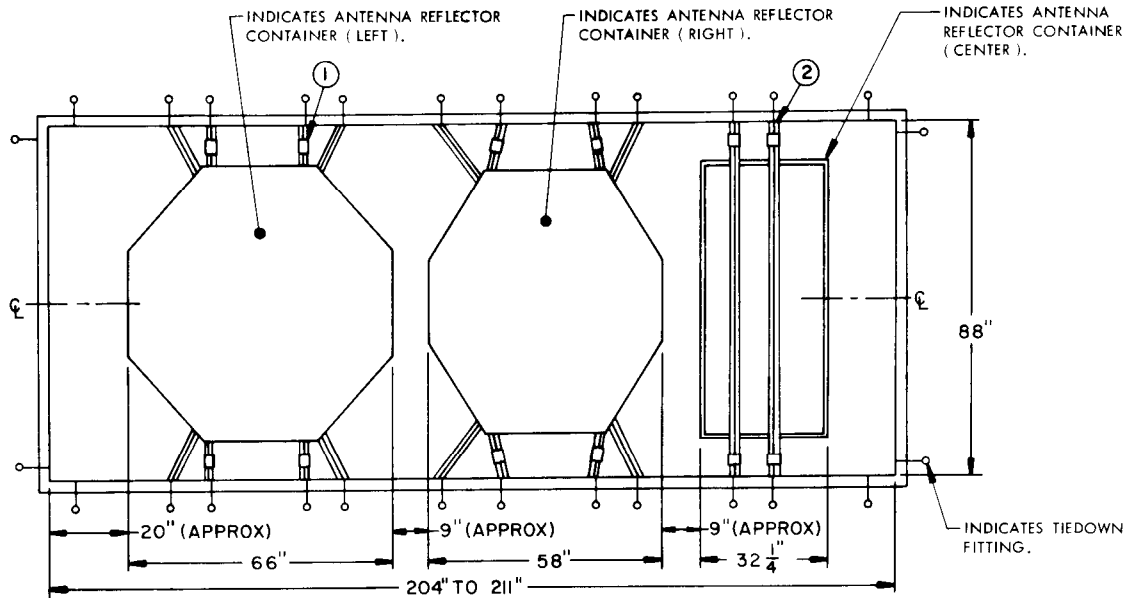
LOADING, TIEDOWN, AND UNLOADING PROCEDURES

LOADING AND TIEDOWN:

- STEP 1 - SET THE BRAKES ON THE TRANSPORT VEHICLE. FOR A TRUCK, OPEN THE TAIL GATE.
- STEP 2 - REMOVE THE CANVAS COVER AND BOWS FROM THE TRUCK OR THE SIDE RACKS FROM THE SEMITRAILER.
- STEP 3 - ATTACH THE HANDLING SLING TO A CONTAINER.
- STEP 4 - ATTACH THE HOOK OF THE HOISTING EQUIPMENT TO THE SLING AND CAREFULLY RAISE AND POSITION THE ITEM IN THE TRUCK OR ON THE TRAILER. LOCATE AS SHOWN IN DETAILED DRAWINGS HEREIN.
- STEP 5 - AFTER THE ITEM IS LOWERED INTO PROPER POSITION ON THE VEHICLE, DETACH THE SLING. POSITION AND TENSION THE WEB STRAP TIEDOWN ASSEMBLIES. FOR APPLICATION OF THE WEB STRAPS, SEE GENERAL NOTE "E" TO THE LEFT, AND THE PROCEDURES ON PAGES 3 THRU 6.
- STEP 6 - FOR TRUCK, CLOSE AND SECURE THE TAIL GATE. SEE GENERAL NOTE "G" TO THE LEFT.

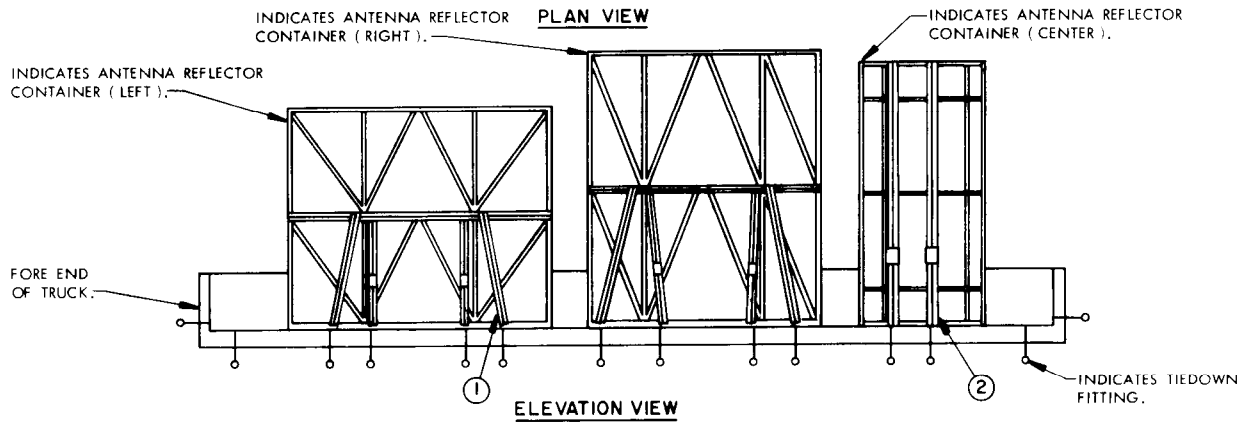
UNLOADING:

- STEP 1 - SET THE BRAKES ON THE TRANSPORT VEHICLE. FOR A TRUCK, OPEN THE TAIL GATE.
- STEP 2 - REMOVE THE CANVAS COVER AND BOWS FROM THE TRUCK OR THE SIDE RACKS FROM THE SEMITRAILER. REMOVE THE WEB STRAP TIEDOWN ASSEMBLIES.
- STEP 3 - ATTACH THE HANDLING SLING TO A CONTAINER.
- STEP 4 - ATTACH THE HOOK OF THE HOISTING EQUIPMENT TO THE SLING. CAREFULLY RAISE THE ITEM SUFFICIENTLY TO CLEAR OBSTACLES, SWING CLEAR OF THE VEHICLE AND LOWER TO THE GROUND OR PLATFORM.
- STEP 5 - REMOVE THE HANDLING GEAR AND EQUIPMENT, AND STOW THE GEAR.
- STEP 6 - REPLACE THE BOWS AND CANVAS COVER ON THE TRUCK, OR THE SIDE RACKS ON SEMITRAILERS, IF REQUIRED. FOR TRUCK, CLOSE AND SECURE THE TAIL GATE.



INDICATES ANTENNA REFLECTOR CONTAINER (LEFT).
INDICATES ANTENNA REFLECTOR CONTAINER (RIGHT).
INDICATES ANTENNA REFLECTOR CONTAINER (CENTER).
INDICATES TIEDOWN FITTING.

PLAN VIEW

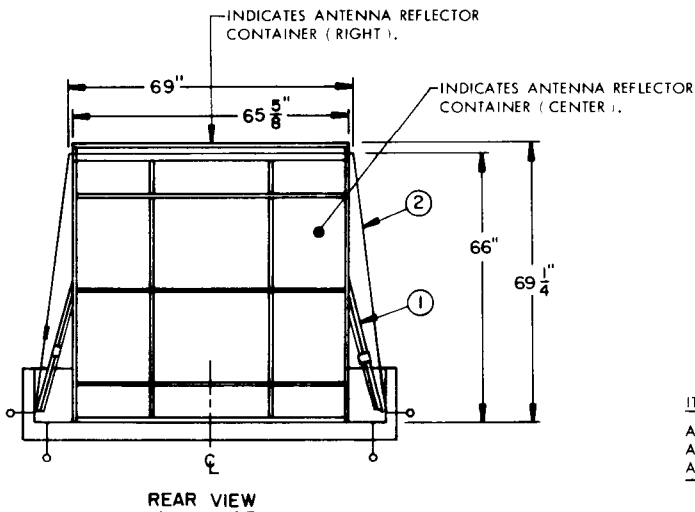


INDICATES ANTENNA REFLECTOR CONTAINER (RIGHT).
INDICATES ANTENNA REFLECTOR CONTAINER (CENTER).
INDICATES TIEDOWN FITTING.

ELEVATION VIEW

KEY NUMBERS

- ① WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL TO EXTEND FROM A TIEDOWN FITTING ON THE TRUCK, AROUND AN EXTERIOR FRAME MEMBER OF A CONTAINER, AS SHOWN, AND BACK TO AN ADJACENT TIEDOWN FITTING.
- ② WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO EXTEND FROM A TIEDOWN FITTING ON THE TRUCK, OVER THE TOP OF THE CONTAINER, AND ATTACH TO A TIEDOWN FITTING ON THE OPPOSITE SIDE OF THE TRUCK.



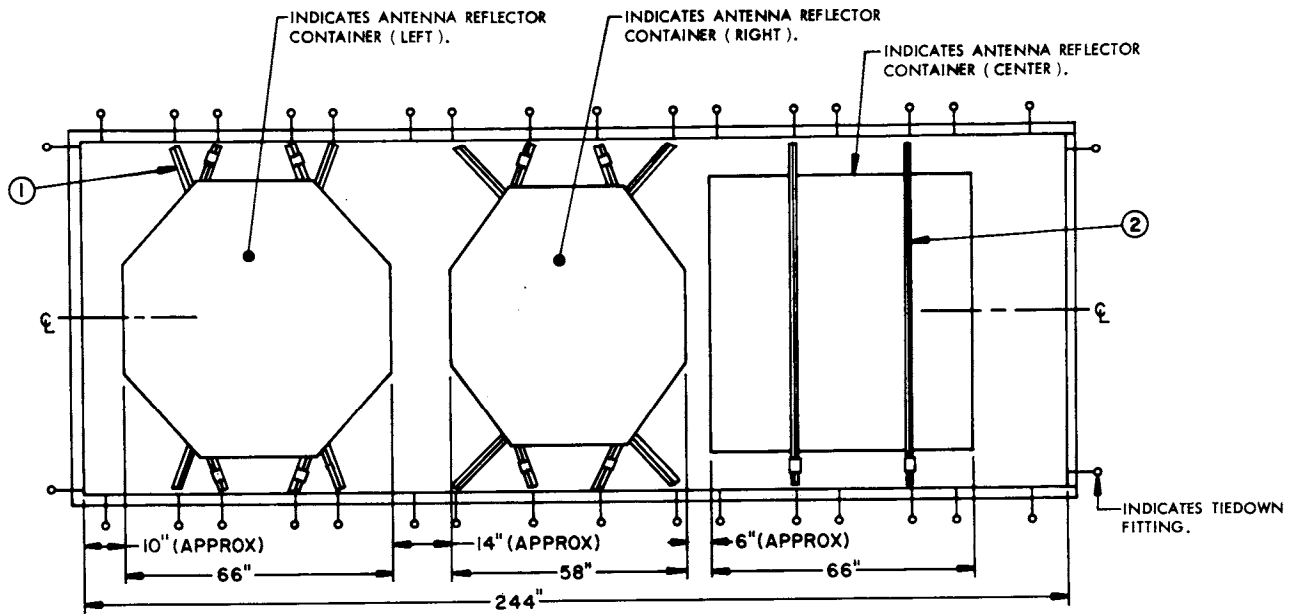
INDICATES ANTENNA REFLECTOR CONTAINER (RIGHT).
INDICATES ANTENNA REFLECTOR CONTAINER (CENTER).
INDICATES TIEDOWN FITTING.

REAR VIEW

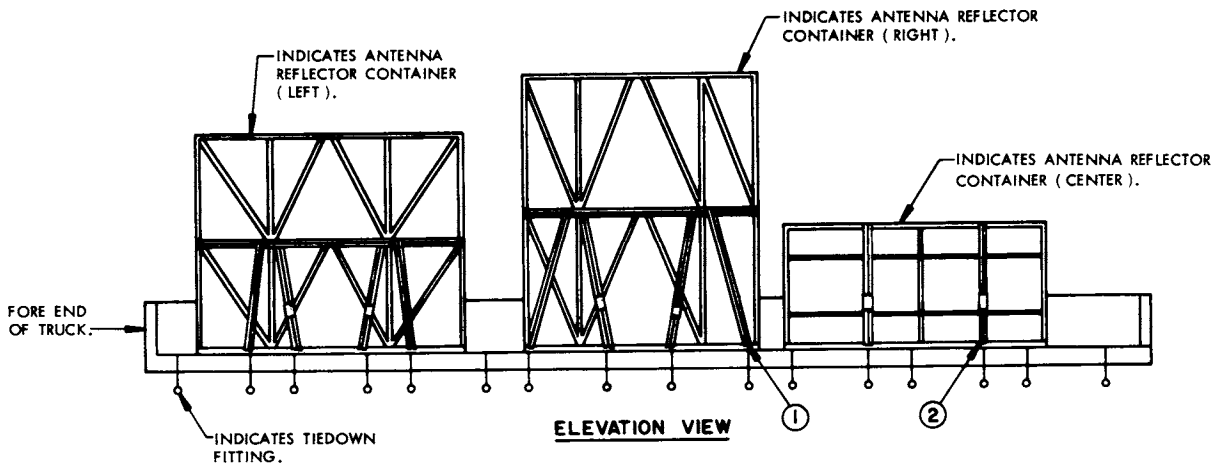
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
ANTENNA REFLECTOR (LEFT)	1	350 LBS
ANTENNA REFLECTOR (RIGHT)	1	240 LBS
ANTENNA REFLECTOR (CENTER)	1	117 LBS
TOTAL WEIGHT		707 LBS

TRUCK, CARGO, 2 1/2 TON



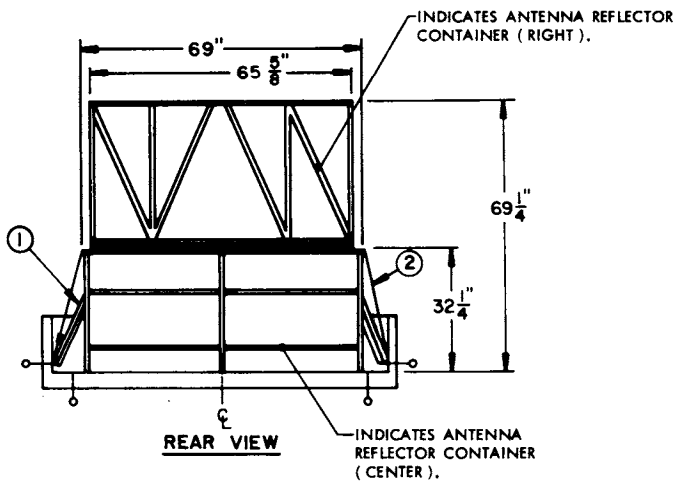
PLAN VIEW



ELEVATION VIEW

KEY NUMBERS

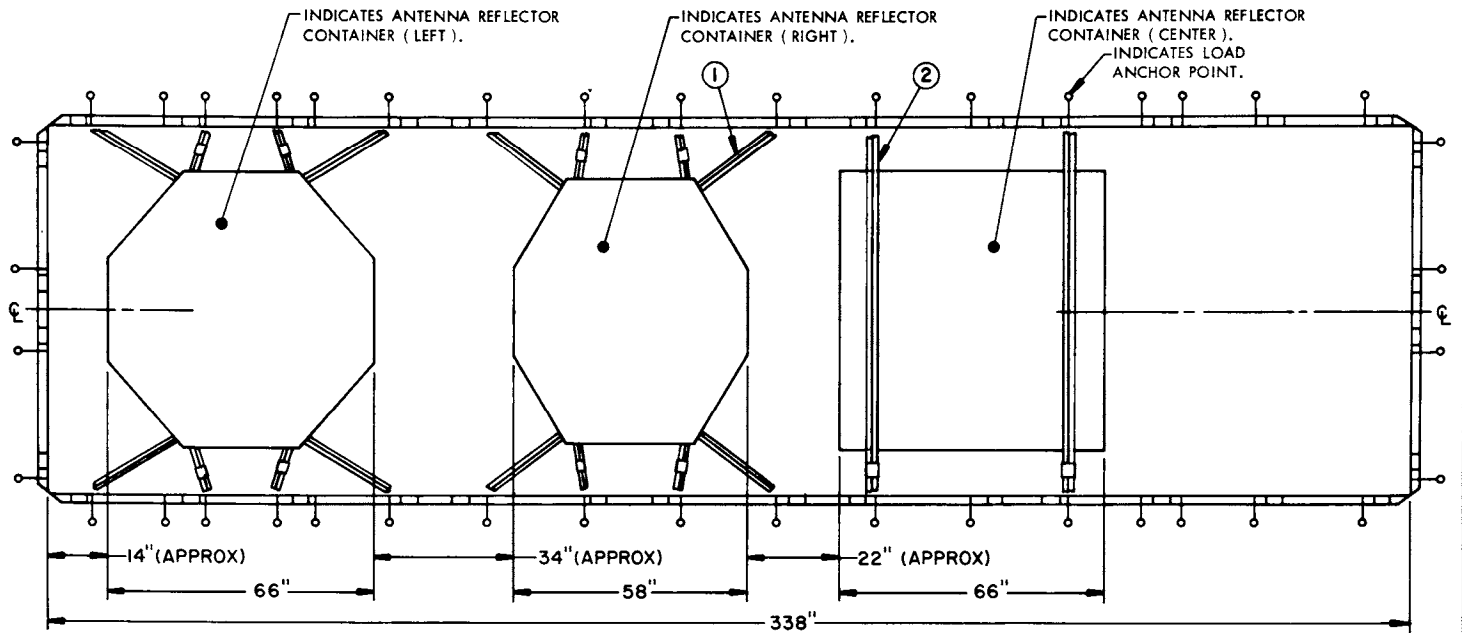
- ① WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL TO EXTEND FROM A TIEDOWN FITTING ON THE TRUCK, AROUND AN EXTERIOR FRAME MEMBER OF A CONTAINER, AS SHOWN, AND BACK TO AN ADJACENT TIEDOWN FITTING.
- ② WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO EXTEND FROM A TIEDOWN FITTING ON THE TRUCK, OVER THE TOP OF THE CONTAINER, AND ATTACH TO A TIEDOWN FITTING ON THE OPPOSITE SIDE OF THE TRUCK.



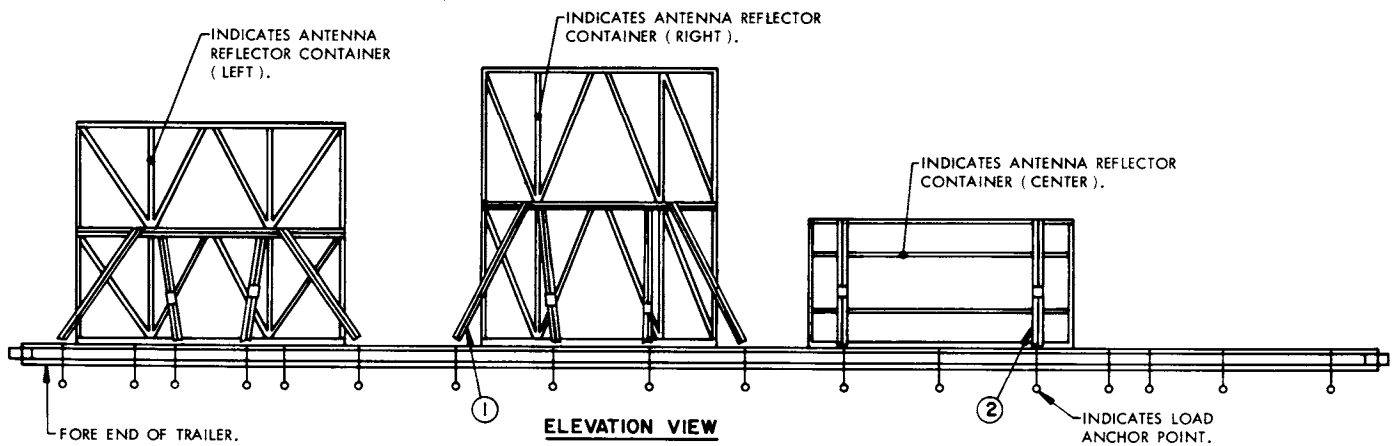
REAR VIEW

LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
ANTENNA REFLECTOR (LEFT)	1	350 LBS
ANTENNA REFLECTOR (RIGHT)	1	240 LBS
ANTENNA REFLECTOR (CENTER)	1	117 LBS
TOTAL WEIGHT		707 LBS



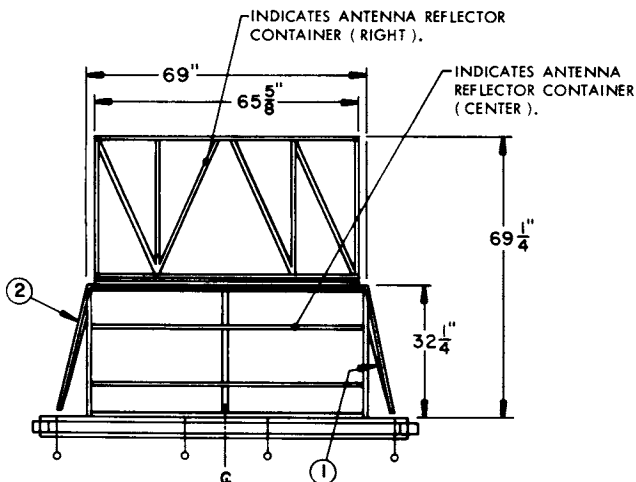
PLAN VIEW



ELEVATION VIEW

KEY NUMBERS

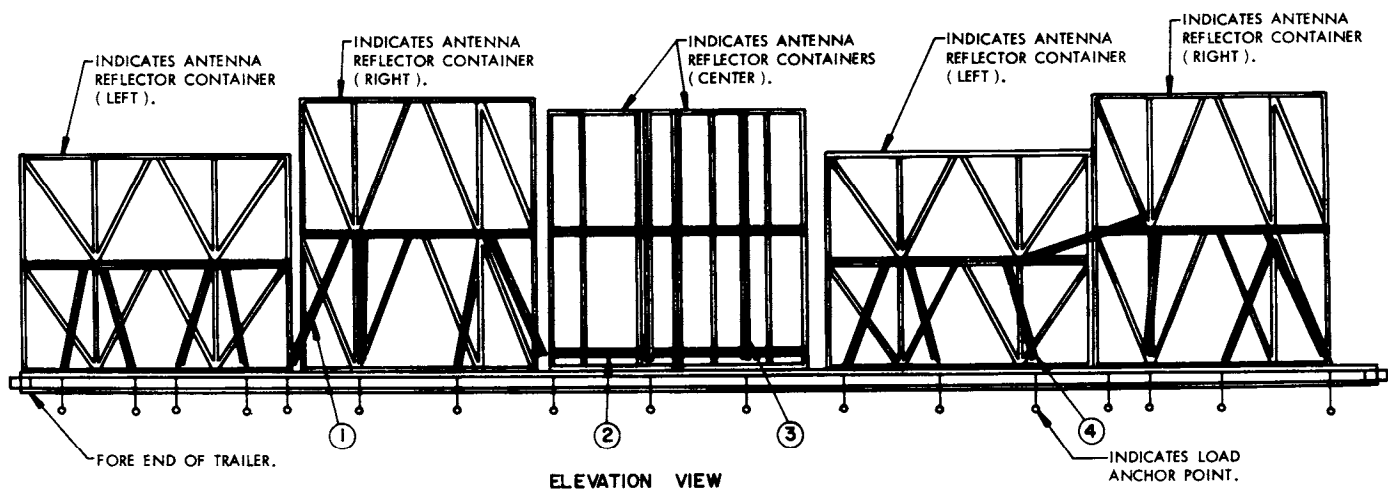
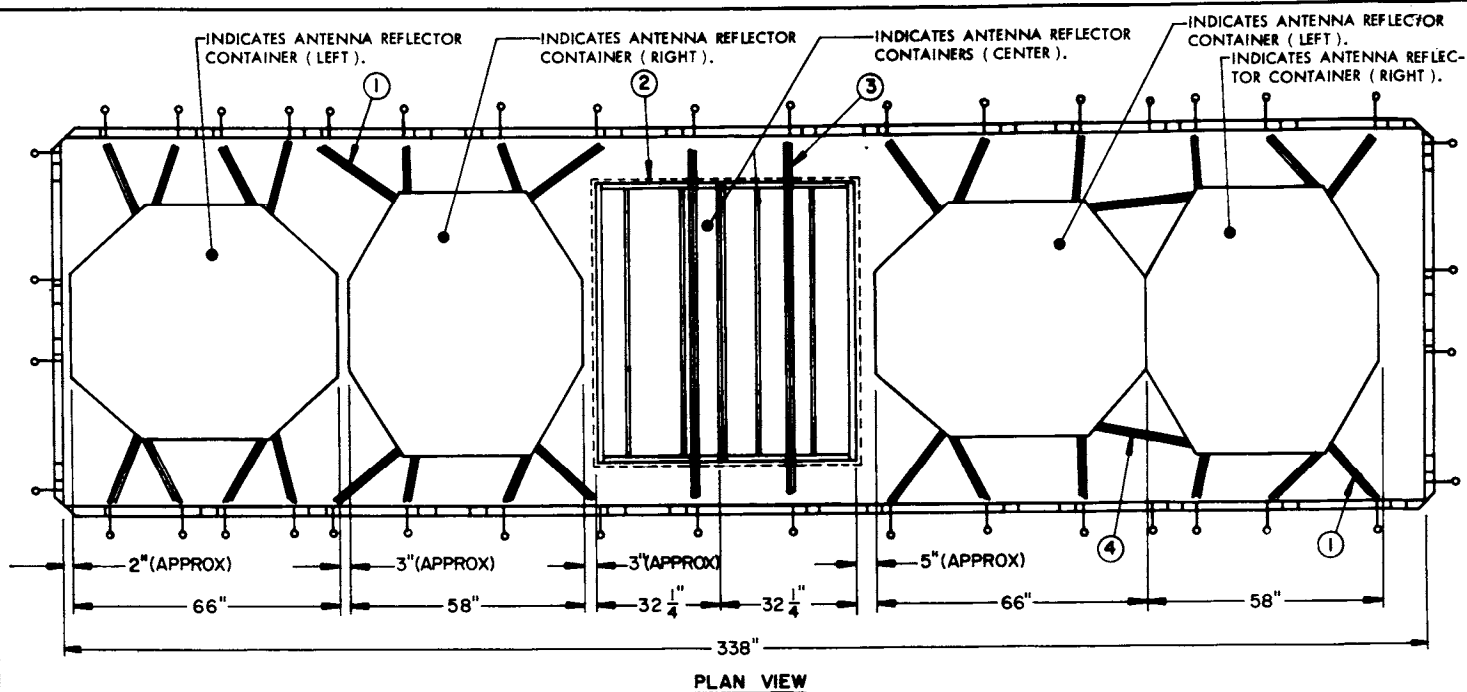
- ① WEB STRAP TIEDOWN ASSEMBLY (8 REQD). INSTALL TO EXTEND FROM A LOAD ANCHOR POINT ON THE TRAILER, AROUND AN EXTERIOR FRAME MEMBER OF A CONTAINER, AS SHOWN, AND BACK TO A LOAD ANCHOR POINT.
- ② WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO EXTEND FROM A LOAD ANCHOR POINT ON ONE SIDE OF THE TRAILER, OVER THE TOP OF THE CONTAINER, AND ATTACH TO A LOAD ANCHOR POINT ON THE OPPOSITE SIDE OF THE TRAILER.



REAR VIEW

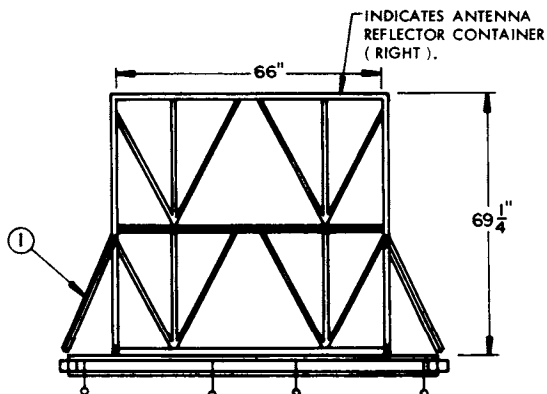
LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
ANTENNA REFLECTOR (LEFT)	1	350 LBS
ANTENNA REFLECTOR (RIGHT)	1	240 LBS
ANTENNA REFLECTOR (CENTER)	1	117 LBS
TOTAL WEIGHT		707 LBS



KEY NUMBERS

- ① WEB STRAP TIEDOWN ASSEMBLY (12 REQD). INSTALL TO EXTEND FROM A LOAD ANCHOR POINT ON THE TRAILER, AROUND AN EXTERIOR FRAME MEMBER OF A CONTAINER, AS SHOWN, AND BACK TO AN ADJACENT LOAD ANCHOR POINT.
- ② WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO ENCIRCLE THE TWO ANTENNA REFLECTOR CONTAINERS (CENTER). NOTE THAT THE STRAPS MUST BE PASSED BEHIND SOME OF THE TUBULAR FRAME MEMBERS TO HOLD THEM IN PLACE.
- ③ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO EXTEND FROM A LOAD ANCHOR POINT ON THE TRAILER, OVER THE TOP OF A CONTAINER, AS SHOWN, AND ATTACH TO A LOAD ANCHOR POINT ON THE OPPOSITE SIDE OF THE TRAILER.
- ④ WEB STRAP TIEDOWN ASSEMBLY (2 REQD). INSTALL TO EXTEND FROM A LOAD ANCHOR POINT ON THE TRAILER, AROUND AN EXTERIOR FRAME MEMBER OF TWO CONTAINERS, AS SHOWN, AND BACK TO A LOAD ANCHOR POINT ON THE SAME SIDE OF THE TRAILER.



LOAD AS SHOWN

ITEM	QUANTITY	WEIGHT (APPROX)
ANTENNA REFLECTOR (LEFT)	2	700 LBS
ANTENNA REFLECTOR (RIGHT)	2	480 LBS
ANTENNA REFLECTOR (CENTER)	2	234 LBS
TOTAL WEIGHT		1,414 LBS