

Field Manual
 NO 4-20.116
 Technical Order
 NO 13C7-1-13

HEADQUARTERS
 DEPARTMENTS OF THE ARMY
 AND THE AIR FORCE
 Washington, DC 20 August 2001

Airdrop of Supplies and Equipment Reference Data for Airdrop Platform Loads

TABLE OF CONTENTS

		Page
	LIST OF ILLUSTRATIONS	iii
	LIST OF TABLES	v
	PREFACE	vii
Chapter 1	INTRODUCTION	
	General	1-1
	Special Considerations	1-1
Chapter 2	REFERENCE TABLES	
	General	2-1
	Textile Terminology	2-1
Chapter 3	RIGGED LOAD REFERENCE DATA	
Section - I	Introduction	
	General	3-1
	Type V Platform Low-Velocity Airdrop	3-1
	Combat-Expendable Platform Low-Velocity Airdrop	3-1
	Maritime Aerial Delivery Systems Platform Low-Velocity Airdrop	3-1
Section - II	Type V Platform Low-Velocity Airdrop	3-2
Section - III	Combat-Expendable Platform Low-Velocity Airdrop	3-121
Section - IV	Maritime Aerial Delivery Systems Platform	3-130

*This publication supersedes FM 10-516/TO 13C7-1-13, 31 October 1983

	Page
Chapter 4	AIRCRAFT CAPABILITIES
General	4-1
C-130 Hercules	4-1
C-141 Starlifter	4-1
C-17 Globemaster	4-2
C-5 Galaxy	4-2
Glossary	Glossary-1
References	References-1

LIST OF ILLUSTRATIONS

Figure		Page
3-1	One Military Utility Vehicle (M-Gator) on an 8-Foot Platform	3-2
3-2	Two Military Utility Vehicles (M-Gator) and Equipment Box Rigged on a 20-Foot Platform	3-3
3-3	One Military Utility Vehicle (M-Gator) and an A-22 Cargo Bag on a 12-Foot Platform	3-4
3-4	Bulk Supplies on an 8-Foot Platform	3-5
3-5	Bulk Supplies in A-22 Cargo Bags on an 8-Foot Platform	3-6
3-6	Bulk Supplies on a 12-Foot Platform	3-7
3-7	FAST Equipment on a 12-Foot Platform	3-8
3-8	Bulk Supplies on a 16-Foot Platform	3-9
3-9	155-Millimeter Ammunition on a 16-Foot Platform	3-10
3-10	20-mm Ammunition on a 16-Foot Platform	3-11
3-11	Mass Supply Boxes on a 16-Foot Platform	3-12
3-12	Mass Supply Boxes on a 20-Foot Platform	3-13
3-13	PLS Pallet with 105-Millimeter Ammunition on a 24-Foot Platform	3-14
3-14	PLS Pallet with A-22 Containers on a 24-Foot Platform	3-15
3-15	3/4-Ton Cargo Trailer	3-16
3-16	M998 Cargo/Troop Carrier	3-17
3-17	M1025 Armament Carrier	3-18
3-18	M1025 Armament Carrier with Additional Accompanying Ammunition Load	3-19
3-19	M56 Smoke Generator Rigged in M1113 HMMWV	3-20
3-20	Two M998 Trucks	3-21
3-21	M102 Howitzer Rigged with 17 Boxes of Ammunition	3-22
3-22	M102 Howitzer Rigged with 23 Boxes of Ammunition	3-23
3-23	M102 Howitzer with 1 1/4-Ton Truck	3-24
3-24	M119 Howitzer Rigged with 30 Boxes of Ammunition	3-25
3-25	M119 Howitzer with 1 1/4-Ton Truck	3-26
3-26	M119 Howitzer rigged with 81-Millimeter Mortar	3-27
3-27	Two M119 Howitzers	3-28
3-28	Two M119 Howitzers with Light Ammunition	3-29
3-29	Two M119 Howitzers Rigged with Two 81-Millimeter Mortars	3-30
3-30	M101A1 Howitzer	3-31
3-31	Type 1 D-5B Tractor Dozer	3-32
3-32	John Deere 450G Lt Full-Track Bulldozer	3-33
3-33	Deployable Universal Combat Earthmover (DEUCE)	3-34
3-34	Three 250-Gallon Water Drums on 8-Foot Platform	3-35
3-35	Three 250-Gallon Water Drums on 12-Foot Platform	3-36
3-36	MMLS in an M998 and a 3/4-Ton Trailer	3-37
3-37	SICPS with the CHS-2	3-38
3-38	CAV	3-39
3-39	M998 Cargo/Troop Carrier (Two Seater) with GRC/206 Air Force Pallet	3-40
3-40	M998 Cargo/Troop Carrier (Four Seater) with GRC/206 Air Force Pallet	3-41
3-41	S-318/G Shelter with AN/GRC-122 Communications Equipment	3-42
3-42	S-502 Shelter with AN/GRC-142 Communications Equipment	3-43
3-43	PU-619M Power Unit	3-44
3-44	PU-620M Power Unit	3-45
3-45	M198 155-Millimeter Howitzer	3-46
3-46	M198 155-Millimeter Howitzer with Accompanying Ammunition	3-47
3-47	Type 1 Towed Roller	3-48
3-48	M435 Towed Roller	3-49
3-49	13-Wheeled Towed Roller	3-50
3-50	11-Wheeled Towed Roller	3-51

LIST OF ILLUSTRATIONS (CONTINUED)

Figure		Page
3-51	MDG 96 Sheepsfoot Roller	3-52
3-52	Thirteen Wheel (Model PT-13) Towed Roller	3-53
3-53	Vibratory Compactor (Model CS-433C).....	3-54
3-54	Vibratory Compactor (Model CS-433P)	3-55
3-55	M416 Trailer with Eight TOW Missiles	3-56
3-56	TOW Missiles Rigged in A-22 Cargo Bags	3-57
3-57	TOW Missiles	3-58
3-58	M966 TOW Carrier	3-59
3-59	M4K 4,000 Pound Capacity Forklift	3-60
3-60	6,000-Pound Capacity Forklift	3-61
3-61	M270 4,000-Pound Capacity Forklift	3-62
3-62	1 1/2-Ton Trailer	3-63
3-63	M149A1 400-Gallon Water Trailer	3-64
3-64	M167A1 Gun	3-65
3-65	M167A2 Gun with 1 1/4-Ton Truck	3-66
3-66	FARE with Two 500-gallon Fuel Drums	3-67
3-67	FARE Rigged in an M101A1 3/4-Ton Trailer	3-68
3-68	FARE with Seven 500-Gallon Fuel Drums	3-69
3-69	350-GPM Wheel-Mounted Pumping Assembly with Filter/Separator	3-70
3-70	Three 500-Gallon Drums with Pump and Separator	3-71
3-71	Four 500-Gallon Drums with Pump and Separator	3-72
3-72	Five 500-Gallon Drums with Pump and Separator	3-73
3-73	Six 500-Gallon Drums with Pump and Separator	3-74
3-74	SEE	3-75
3-75	JD410 Tractor	3-76
3-76	Fifteen-Ton Tilt Bed Trailer	3-77
3-77	Five-Bay, Single-Story, Medium Girder (Fixed) Bridge	3-78
3-78	Two-Bay Components for the Seven-Bay, Single-Story Medium Girder (Fixed) Bridge	3-79
3-79	Mobile Over Snow Transport (MOST)	3-80
3-80	M1025 or M1026 Armanent Carrier with TDARS	3-81
3-81	120-Millimeter Mortar and 1 1/4-Ton Truck	3-82
3-82	1 1/4-Ton HMMWV Truck with 120-Millimeter Mortar	3-83
3-83	Koehring 7 1/2-Ton Crane	3-84
3-84	M998 1 1/4-Ton Truck with Six Stinger Weapon Systems	3-85
3-85	Avenger Air Defense Weapons System with ECU and M1097A2 Truck	3-86
3-86	Thirty-six Dragon or Dragon II Missiles in One-Round Containers	3-87
3-87	Four Dragon or Dragon II Missiles in 15-Round Containers	3-88
3-88	Four A-22 Cargo Bags with Dragon or Dragon II Missiles in One-round Containers	3-89
3-89	Four Dragon or Dragon II Missiles in 15-Round Container Rigged in Four A-22 Cargo Slings	3-90
3-90	Thirty-six Javelin Rounds as a Mass Supply Load	3-91
3-91	1 1/2-Ton Ammunition Trailer	3-92
3-92	Mine Clearing Line Charge (MICLIC) on 2 1/2-Ton Trailer	3-93
3-93	600-GPH ROWPU	3-94
3-94	Whole Blood	3-95
3-95	Two Drums without Pumping Assembly	3-96
3-96	Three Drums without Pumping Assembly	3-97
3-97	Three Drums with Pumping Assembly	3-98
3-98	Four Drums without Pumping Assembly	3-99
3-99	Five Drums without Pumping Assembly	3-100

LIST OF ILLUSTRATIONS (CONTINUED)

Figure		Page
3-100	Six Drums without Pumping Assembly	3-101
3-101	Six Drums with Pumping Assembly	3-102
3-102	Seven Drums without Pumping Assembly	3-103
3-103	Seven Drums with Pumping Assembly	3-104
3-104	M996 2-Litter Armored Ambulance.....	3-105
3-105	M973A 1 1/2-Ton Cargo Carrier Small Unit Support Vehicle (SUSV)	3-106
3-106	M113 Armored Personnel Carrier	3-107
3-107	Ingersol-Rand Model 250-CFM Trailer-Mounted Air Compressor	3-108
3-108	M1081 2 1/2-Ton Cargo Truck	3-109
3-109	M1081 2 1/2-Ton Cargo Truck with Accompanying Load	3-110
3-110	M1093 5-Ton 6x6 Standard Cargo Truck	3-111
3-111	130G Motor Grader	3-112
3-112	950B Scoop-Loader	3-113
3-113	950B Scoop-Loader with Forklift Attachment.....	3-114
3-114	613WD Water Distributor	3-115
3-115	613S Type I Scraper	3-116
3-116	Rapid Runway Repair Kit on 24-Foot Platform	3-117
3-117	Rapid Runway Repair Kit on 20-Foot Platform	3-118
3-118	Rapid Runway Repair (RRR) Kit-ALPHA.....	3-119
3-119	Trailer-Mounted Engineer Electrical Tool Outfit	3-120
3-120	Zodiac Mark III Rubber Raiding Craft	3-121
3-121	Zodiac Mark III Futura Rubber Raiding Craft	3-122
3-122	Z-Bird Rubber Raiding Craft	3-123
3-123	Zodiac K40 Rubber Raiding Craft.....	3-124
3-124	Zodiac K50 Rubber Raiding Craft.....	3-125
3-125	Double Zodiac F470U Boat.....	3-126
3-126	One Motorcycle	3-127
3-127	Two Motorcycles	3-128
3-128	Four Wheeled Quad-Runner	3-129
3-129	Naval Special Warfare Rigid Inflatable Boat (NSW RIB)	3-130

Table	LIST OF TABLES	Page
2-1	Chains	2-1
2-2	Cloth, duck, cotton, type III-Army duck.....	2-2
2-3	Cloth, duck, nylon	2-2
2-4	Cloth, duck, nylon, parachute packs	2-2
2-5	Cloth, muslin, cotton	2-3
2-6	Cloth, muslin, cotton (parachute canopy)	2-3
2-7	Cloth, nylon, parachute, cargo.....	2-3
2-8	Cloth, parachute, nylon, cargo, and deceleration	2-4
2-9	Cloth, parachute, nylon	2-4
2-10	Cloth, sateen, cotton	2-4
2-11	Cord, nylon	2-5

LIST OF TABLES (CONTINUED)

Table		Page
2-12	Cord, nylon, coreless.....	2-5
2-13	Cord, elastic, exerciser and shock absorber for aeronautical use.....	2-6
2-14	Cord, rayon, without core, braided.....	2-6
2-15	Cord, cotton, general-purpose, type I.....	2-7
2-16	Felt sheet (hair) and felt roll (hair).....	2-8
2-17	Grommet, metallic.....	2-9
2-18	Lumber.....	2-13
2-19	Nails.....	2-15
2-20	Parachute, cargo.....	2-17
2-21	Parachute, cargo extraction.....	2-17
2-22	Platform, cargo airdrop, type V.....	2-18
2-23	Plywood, flat panel.....	2-18
2-24	Ribbon, nylon, parachute.....	2-19
2-25	Rope, manila and sisal.....	2-19
2-26	Sling, cargo, airdrop.....	2-20
2-27	Sling, endless.....	2-20
2-28	Tape, textile, cotton, general-purpose.....	2-21
2-29	Tape, textile, nylon.....	2-21
2-30	Tape and webbing, textile, rayon.....	2-22
2-31	Tape, textile and webbing, textile, reinforcing, nylon.....	2-22
2-32	Tape and webbing, textile, cotton reinforcing, woven.....	2-23
2-33	Thread, nylon.....	2-24
2-34	Thread, cotton.....	2-25
2-35	Webbing, textile, woven nylon.....	2-29
2-36	Webbing, textile, nylon, tubular.....	2-30
2-37	Webbing, textile, cotton warp.....	2-30
2-38	Webbing, textile, elastic, cotton.....	2-31
2-39	Webbing, textile, cotton, general-purpose.....	2-31
2-40	Wire strand (6 x 19).....	2-33
2-41	Wire strand, steel (corrosion resistant), preformed (aircraft application).....	2-33
2-42	Miscellaneous hardware and equipment.....	2-34

PREFACE

SCOPE

This manual provides a ready-reference planning guide for loads rigged for airdrop. It illustrates the rigged load and contains dimensional data, weight, and center of balance (CB) for each load. Information is also provided on aircraft, extraction parachutes and reference tables of miscellaneous information on materials used to fabricate and maintain air items and to rig airdrop equipment.

USER INFORMATION

The proponent of this publication is HQ TRADOC. You are encouraged to report any errors or omissions and to suggest ways of making this a better manual.

Army personnel, send your comments on DA Form 2028 directly to:

Director
Aerial Delivery and Field Services Department
USA Quartermaster Center and School
1010 Shop Road
Fort Lee, Virginia 23801-1502

Air Force personnel, send your reports on AFTO Form 22 through your respective command Weapons and Tactics to:

Headquarters
Air Mobility Command (AMC/DOKT)
402 Scott Drive, Unit 3AI
Scott AFB, Illinois 62225-5302

Air Force personnel in Special Operations Command, send your reports on AFTO Form 22 HQ AMC/DOK will consolidate and forward changes to:

Director
Aerial Delivery and Field Services Department
USA Quartermaster Center and School
1010 Shop Road
Fort Lee, Virginia 23801-1502

Also send an information copy of AFTO Form 22 to:

WR-ALC/LKCB
460 Richard Ray Blvd.
Robins AFB, Georgia 31098-1640