BY ORDER OF THE COMMANDER **AFSOC INSTRUCTION 11-203, VOLUME 5**
AIR FORCE SPECIAL OPERATIONS COMMAND **1 July 1998**

Flying Operations

AC-130H CONFIGURATION/MISSION PLANNING

COMPLIANCE WITH THIS INSTRUCTION IS MANDATORY. This instruction implements AFPD 11-2, *Aircraft Rules and Procedures*. This instruction establishes the basic configuration for AC-130H aircraft in regards to mission requirements. It applies to all organizations charged with configuring and operating AC-130H aircraft. It does not apply to the Air Force Reserve Command (AFRC) or the Air National Guard (ANG).

SUMMARY OF REVISIONS

This revision provides operational configuration guidance formerly in AFSOCR 55-19, Volume 5. It incorporates administrative changes; deletes G-4 configuration, FARP equipment, DD Form 365-4 instructions, sample Form F, and crew table. It also changes paragraph title from "deviations" to "modifications" (para 1.4), reduces distribution requirements (para 1.6), updates references (para 1.9), updates standard and additional equipment tables (tables 2.1 and 2.2), updates legend of configuration (para 3.2); clarifies safety aisle requirements (para 4.2), updates standard weights (table 4.1); updates munitions packages (table 4.2). Asterisks (*) indicate changes from previous version.

Supersedes AFSOCR 55-19 Volume 5, 1 Nov 92.
OPR: HQ AFSOC/DOVS (SMSgt Robert Strollo)
Certified by: HQ AFSOC/DOV (Col Jerry L. Garlington)
Pages: 14
Distribution: F

	Paragraph	Page
Chapter 1 -- POLICY		
General	1.1	3
Responsibilities	1.2	3
Standard Configuration Codes	1.3	3
Modifications	1.4	3
Weight and Balance	1.3	3
Distribution	1.6	3
Revisions	1.7	4
Supplements	1.8	4
References	1.9	4
Chapter 2 – CONSOLIDATED EQUIPMENT TABLES		
General	2.1	5
Table 2.1. Standard Equipment		5
Table 2.2. Additional Equipment		7
Chapter 3 – CONFIGURATION PLANS		
General	3.1	8
Legend of Configuration	3.2	8

Figure 3.1. Cargo Ramp Stowage Configuration 8
Figure 3.2. Cargo Door Stowage Configuration 9
Figure 3.3. G-1 (Standard) Configuration 9
Figure 3.4. G-2 (Cargo) Configuration 10
Figure 3.5. G-3 (Ferry) Configuration 10
Chapter 4 -- REFERENCE DATA
General 4.1 11
Emergency Exits and Safety Aisles 4.2 11
Special Requirements 4.3 11
Miscellaneous Data 4.4 11
Table 4.1. Standard Weights 12
Table 4.2. Munitions Packages 14

Chapter 1

POLICY

1.1. General. This instruction establishes basic cargo compartment configuration, standard equipment and its location aboard the AC-130H aircraft. Those who use this instruction should bear in mind that an infinite number of variations are available and that the cargo compartment limitations listed here are the most typically encountered on a daily basis.

1.2. Responsibilities. Personnel engaged in planning operations must consider the most appropriate configuration that will satisfy mission requirements and permit the minimum man-hours in configuring the aircraft. Units performing services on the AC-130H aircraft (e.g., maintenance, life support) are responsible for configuring the aircraft IAW this instruction as outlined in the mission directives.

***1.3. Standard Configuration Codes.** Use the following codes when referring to AC-130H cargo compartment configurations. The letter code will be followed by the number which identifies the configuration capability.

G-1 - Standard configuration
G-2 - Cargo configuration
G-3 - Ferry configuration

***1.4. Modifications.** The configuration codes of this instruction may, if necessary, require modifications for a specific mission. Each modification must be carefully evaluated prior to mission operation to ensure maximum flight safety and compatibility with aircraft equipment. Each mission directive will identify the basic configuration by code and the modification, if necessary, to satisfy the mission requirement. For example, a cargo mission may require additional equipment installed/removed not in the G-2 (cargo) configuration.

1.5. Weight and Balance. Configuration and necessary equipment changes to conduct special operations missions affect the weight and balance of the aircraft. To standardize equipment and the location of the equipment, items shown in table 2.1 (standard equipment) will be included in the basic weight of the aircraft and remain on the aircraft except for maintenance and inspection. Equipment listed in table 2.2 (additional equipment) will be added as necessary and entered on DD Form 365-4 (weight and balance clearance form F). When preparing the Form F, the loadmaster enters the weights contained in the table for the applicable configuration. Adjust the actual weight of items that vary from the data shown.

***NOTE:** When G-2 or G-3 configurations are accomplished at a Forward Operating Location (FOL), the loadmaster will add or subtract the listed weight/moment from the last entry in the Chart C. Annotate the new weight/moment in block 1 of the Form F. The Quality Assurance (QA) update to the Chart C is not required. When configurations are changed at home station, QA is required to update the Chart C.

***1.6. Distribution.** Commanders are responsible for bringing this publication to the attention of affected personnel. Maintain at least one copy in the squadron operations section, readily accessible to operations and aircrew personnel. Additional distribution will be, one each, as follows:

1.6.1. Staff operations, all levels.

1.6.2. Offices of aircrew standardization, all levels.

1.6.3. Command posts/operations.

1.6.4. Aircraft maintenance squadrons.

1.6.5. Dash 21 equipment section.

1.6.6. Quality Assurance section.

1.6.7. Life Support sections.

*1.6.8. One located in the supplemental weight and balance handbook binder on each aircraft and the AFSOC/Deployment kits.

1.7. Revisions:

*1.7.1. All changes will consist of a revised page, which will be substituted for a corresponding page. Some minor write-in changes may be made, but these will be held to a minimum.

*1.7.2. Personnel at all echelons are encouraged to make recommendations to improve this instruction. Send proposed changes through channels to HQ AFSOC/DOV on AF Form 847 (Recommendation for Change of Publication), IAW AFI 11-215.

***1.8. Supplements.** Subordinate unit supplements to this instruction that change the basic policies, procedures, or formats prescribed herein are prohibited. Upon publication, forward two copies of all supplements to HQ AFSOC/DOV.

***1.9. References:**

T.O. 1C-130(A)H-1	T.O. 11A10-24-7
T.O. 1C-130(A)H-5	T.O. 11A10-26-7
T.O. 1C-130A-9	AFI 11-301
T.O. 1C-130A-21	AFI 21-101
T.O. 1-1B-40	AFP 76-2
T.O. 1-1B-50	AFSOCI 11-202
T.O. 1C-1-71	

Chapter 2

CONSOLIDATED EQUIPMENT TABLES

***2.1. General.** Configure AC-130H aircraft with the equipment listed in table 2.1. Include this equipment in the aircraft basic weight. Items listed in table 2.2 are added, as necessary, to attain a specific configuration and/or comply with mission directives.

Table 2.1. Standard Equipment

EQUIPMENT	QUANTITY	LOCATION
AAR-44 lens cover	1	Cargo door stowage bin
Air conditioning/heater plugs	2	Ramp stowage bin #2a
ATM air intake plugs	1	Stowed as loose equipment
Avfuels identiplate, Air Card	1	Stowed in single point refueling door
Axe, hand emergency	3	Installed IAW flight manual
Chain, tiedown 10,000 lb.	14	Stowage container at FS 747 Rt. side
Chain, tiedown 25,000 lb.	6	Stowage container forward of booth
Containers, liquid (2 gal)	2	Galley, FS 188
Cup, food warming	2	Galley, FS 188
Curtain, flight deck	1 set	Installed/stowed overhead flight deck area
Device, tiedown 10,000 lb.	7	Secured to stowage bar FS 876, Rt. side
Device, tiedown 25,000 lb.	4	Stowage container forward of booth
Engine intake and exhaust plugs	4	Ramp stowage bin #2a
Extinguisher, fire	7	Installed IAW flight manual
Firefighters smoke mask	6	Attached to portable oxygen bottles
Fluid, hydraulic	2 cases	Stowed in box at FS 429 Lt. side
Fuel tank drain tube	1	Stowed in overhead bracket FS 980
Ground wires	2	Ramp stowage bin #2a
Guard assembly, ramp/cargo door actuator	2/1	Ramp stowage bin #2a
GTC exhaust plug	1	Ramp stowage bin #2a
Guard assy, ramp actuator	2	Ramp stowage bin #2a
Hand crank, landing gear and flaps	2	1 stowed forward of left wheel well, 1 on top of booth FS 433 Rt. side
Interphone cords	41	
a. 6 ft. cords	18	1 at each 6 cockpit crew positions with an additional 12 in stowage bag at FS 188 Lt side.
b. 15 ft. cords	20	7 located in the booth, 2 on the aft wall of booth, 1 at each of 8 gunner positions, 3 installed at the flight engineer, navigator, and fire control officer crew positions.
c. 50 ft. cords	2	1 fwd of FS 254 and 1 aft of FS 737
d. 75 ft. maintenance cord	1	stowed as loose equipment
Jack and tow fittings	2	Ramp stowage bin #2a
Jack pads	1 set	Stowed on top of booth FS 433, Rt. side

EQUIPMENT	QUANTITY	LOCATION
Kit, first aid, aeronautical (small)	7	2 stowed on flight deck, 2 in booth, 2 on fwd wall of booth, and 1 on aft wall of booth
Kit, first aid (large)	2	1 stowed on fwd wall of booth, 1 in booth
Ladder, maintenance	1	Stowed on top of 40mm ammo storage bin
Lamp, ALDIS with lens kit	1	Stowed on the flight deck, Rt. side
Latrine curtain	1	Installed over latrine
Life rafts	2	Inboard wing well compartments
LLLTV lens covers	1set	Stowage bag, at T.V. crew position
Liquid container, emergency (2 gal) **(Note 1)**	4	Lt. and Rt. side, M compartment
Litter brackets	8	4 installed on each booth litter stanchion
Litter straps w/brackets	2	Attached/stowed in respective container bag
Lock assy, main landing gear	2	Ramp stowage bin #2a
Oil, engine	2 cases	Stowed in box at FS 429 Lt. side
Oven	1	Galley, FS 188
Oxygen bottle, walk-around w/strap	8	Installed IAW flight manual
Pitot covers	2	Cargo door stowage bin #1
Ramp air deflector	2	Installed on cargo ramp
Ring, tiedown, 25,000 lb.	2	Installed FS 477 & 617 Lt. side
Rope, emergency escape	3	Installed aft of each overhead escape hatch
Sextant	1	Stowed on flight deck
Strap, tiedown, 5,000 lb.	A/R	Cargo door stowage bins #2 & #3
Sun visors	2	Stowed above pilot/copilot side windows
Technical Publications	1 set	Stowage cabinet, FS 587, Rt. side
Trash can	1	Stowed FS 425, center
Troop seat, two-man/one-man	1/1	Installed in booth at FS 570
Wheel chocks	4	Ramp stowage bin #2b
Wrench, main landing gear, emergency extension	1	Stowed FS 437 Rt. side.

NOTE 1: Containers will be sanitized and filled with water prior to deploying to austere locations. While in use, the containers will be sanitized and filled with water every 30 days.

Table 2.2. Additional Equipment

EQUIPMENT	QUANTITY	LOCATION
Anti-exposure suit	21	Ramp stowage bin #1 (A/R)
Auxiliary ground loading Ramps	A/R	A/R
Brass bags (20mm)	1 set	A/R
Emergency escape breathing device (EEBD)	4	Ramp stowage bin #1
Gun box with 9mm guns	1	Ramp stowage bin #1 (A/R)
Gun clearing tools (PVC pipe)	1	Stowed FS 369 left side (A/R)
Harness, chest pack	23	12 stowed FS 245, and 11 on 20mm ammo bin
Harness, restraint	2	Ramp stowage bin #1
Life preserver underarm, LPU-2/P, LPU-10/P	23	Ramp stowage bin #1
Litters, wooden	A/R	Stowed in booth under troop seats
Mission kit	1	A/R
Parachutes	23	11 stowed on front of booth, and 12 on left wheel well
Safe	1	A/R
Seat kits (MA-4)	21	Ramp stowage bin #1
Sled, Global (A-16)	A/R	A/R
Static display equipment	1 set	A/R
Survival Vests	21	Ramp stowage bin #1 (A/R)
Tool kit, Loadmasters	1	Ramp stowage bin #1
Tool kit, Gunners	1	A/R
Training brass, 40mm clip	1	Stowed FS 655 Rt. side
Water container, (Igloo)	A/R	Stowed as loose equipment

Chapter 3

CONFIGURATION PLANS

***3.1. General.** This chapter contains basic cargo compartment configurations.

*3.1.1. Changes in configuration may affect the overall aircraft center of gravity (CG).

3.1.2. Drawings in this chapter are not drawn precisely to scale with respect to actual aircraft locations.

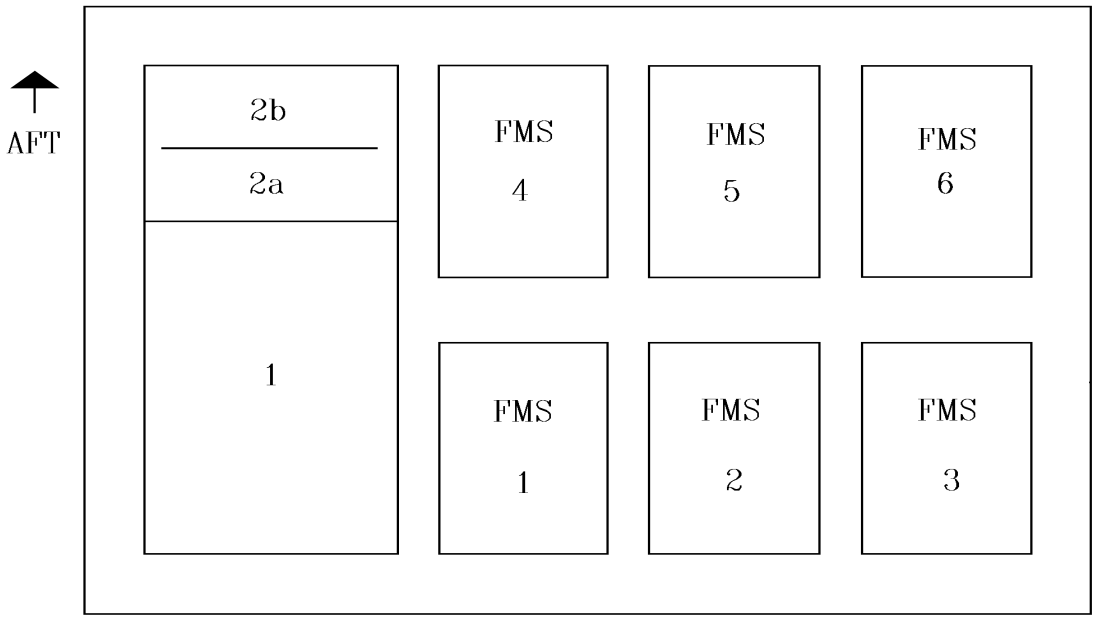
3.2. Legend of Configurations:

3.2.1. G-1. Standard configuration, provides 21 seats, and 3 litter spaces available for crew rest facilities.

3.2.2. G-2. Cargo configuration, provides for floor-loaded cargo on the ramp, 17 seats, and 3 litter spaces available for crew rest facilities.

3.2.3. G-3. Ferry configuration, provides 17 seats, and 3 litter spaces available for crew rest facilities.

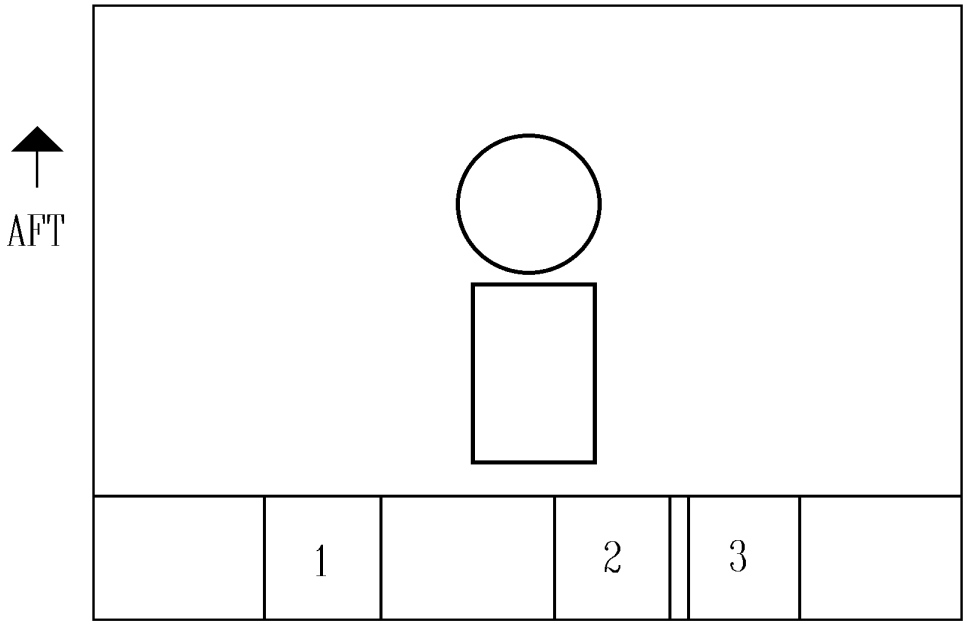
Figure 3.1. Cargo Ramp Stowage Configuration.



1. Stowage bin - Life support equipment.
2a. Stowage Bin - Engine intake/exhaust covers, GTC exhaust plug, cargo door down lock, ramp actuator guard assembly, jack and tow fittings, air conditioning/heater plugs, MLG lock assembly.
2b. Stowage bin - Wheel chocks

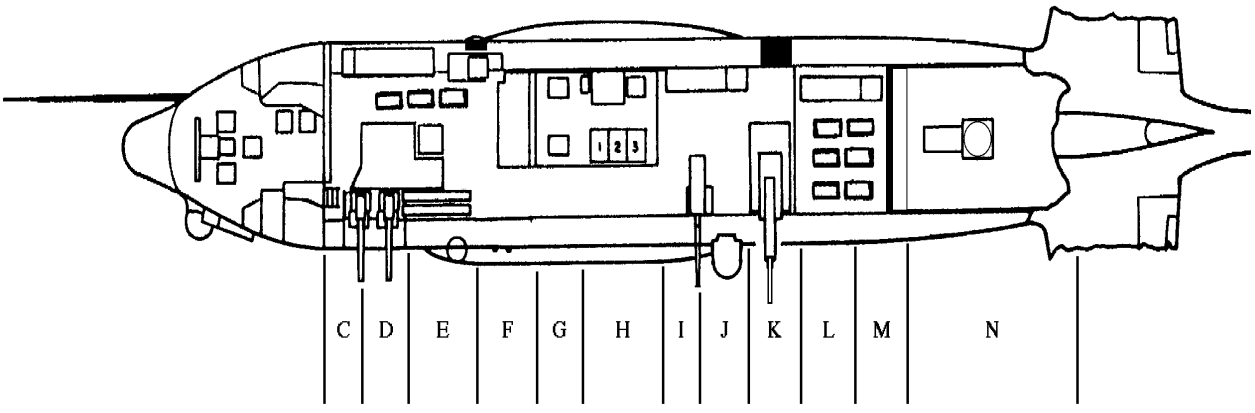
*Floor mounted seats (FMS) may be removed as required and stowed at FS 369, right side.

Figure 3.2. Cargo Door Stowage Configuration.



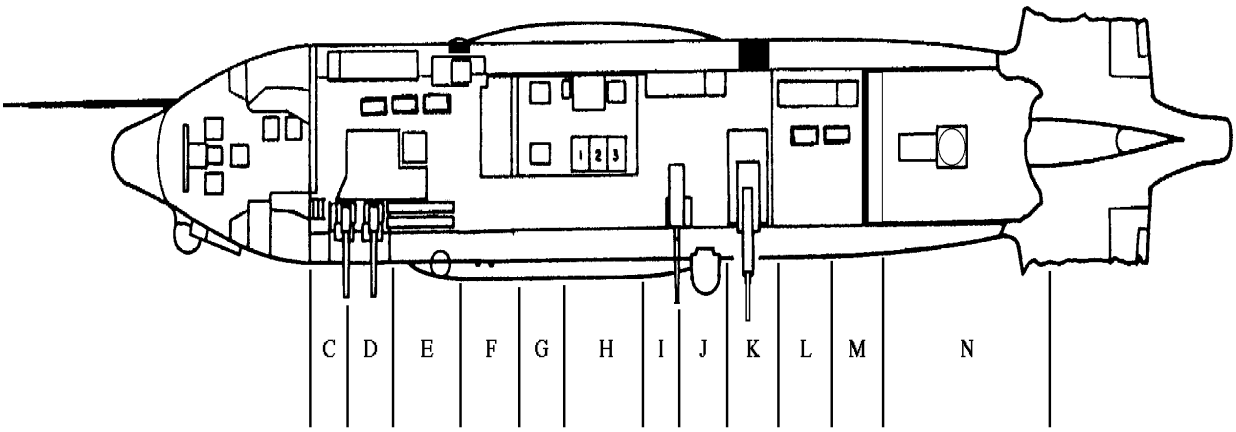
1. Stowage bin - QRC 84-02A covers, AAR-44 lens cover, pitot covers.
2. Stowage bin – 5,000 lb. tiedown straps.
3. Stowage bin – 5,000 lb. tiedown straps.

Figure 3.3. G-1 (Standard) Configuration.



*1. Provides 21 total seats and 3 litter spaces for crew rest facilities.

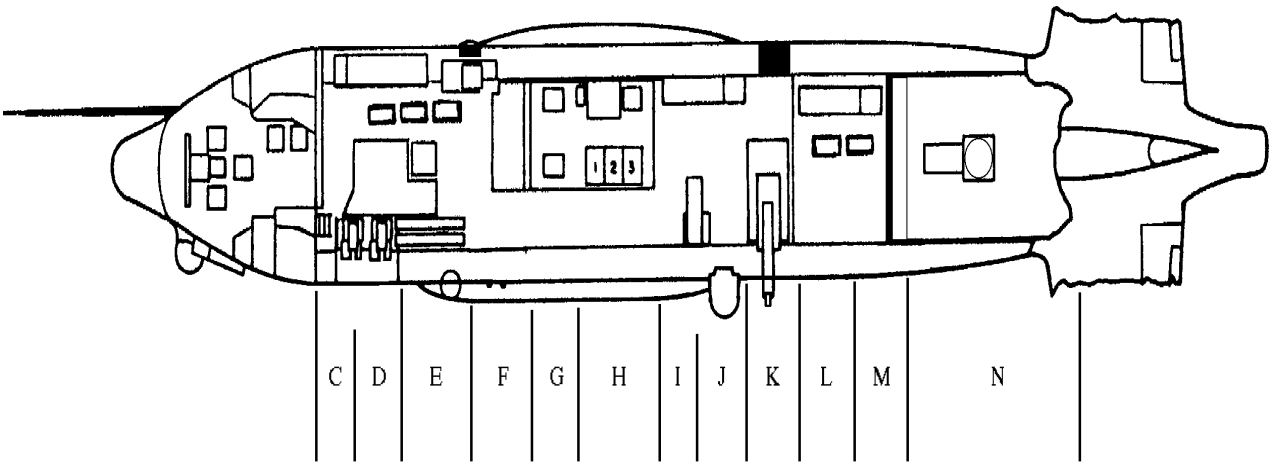
Figure 3.4. G-2 (Cargo) Configuration.



*1. Provides 17 total seats and 3 litter spaces for crew rest facilities.
2. Remove ramp FMS 2, 3, 5, 6, and stow at FS 369 right side to provide space for cargo.
3. Install tiedown rings at 26B/D & 29B/D.

NOTE: Total moment change: -57

Figure 3.5. G-3 (Ferry) Configuration.



*1 Provides 17 total seats and 3 litters spaces for crew rest facilities.
2. Remove and stow 20mm barrels at FS 369 in 20mm ammo cans.
3. Remove and stow 40mm barrel at FS 487 left side.
4. Remove and stow 105mm flash suppressor and wedge at FS 557.
5. Install 20mm and 40mm close out panels.

NOTE: Total weight and moment change: Weight : +19 Moment: -33

Chapter 4

REFERENCE DATA

***4.1. General.** This chapter contains reference data to assist personnel in load planning.

4.2. Emergency Exits and Safety Aisles. Load aircraft in such a manner that the following emergency exits and safety aisles are available:

4.2.1. At least one cabin emergency exit is unobstructed.

*4.2.2. Access to aft latrine facilities requires an 18-inch clear area on the forward left side of cargo loaded on the ramp.

*4.2.3. On all missions, cargo will be loaded in such a way that the crew will have access to the rear of the aircraft.

4.3. Special Requirements. Although deviations to the basic configuration are authorized to meet special requirements, the following factors should be considered:

***NOTE:** Maximum amount of ammo that can be stowed in racks:
3000 - 20mm
256 - 40mm
100 - 105mm
Additional 20mm & 40mm rounds may be stowed in G - H compartments

*4.3.1. Cargo ramp is limited to 3863 pounds with life support bins, floor-mounted seats, and ramp wind breaker installed. When floor-mounted seats are removed, but life support bins and ramp wind breaker are installed, the ramp is limited to 4061 pounds. With only the ramp wind breaker installed, the ramp is limited to 4978 pounds. At no time will the ramp weight exceed 5000 pounds to include cargo weight and any installed equipment.

***4.4. Miscellaneous Data.** The following tables are provided to aid in configuration planning and weight and balance:

*4.4.1. Table 4.1. Standard Weights

*4.4.2. Table 4.2. Munitions Packages

Table 4.1. Standard Weights.

Crew	**Weight/lbs.**
Crew (including professional gear)	200
Tiedown equipment	
Strap CGU-1/B (5000 lb.)	4
MB-1 chain/CGU-4/E	7
MB-1 devices/CGU-4/E	3.5
MB-2 chain/CGU-3/E	20
MB-2 devices/CGU-3/E	6
Additional equipment	
Anti-exposure suit	6
Auxiliary ground loading ramp	80
Bin, life support	180
Brass bags, (20mm)	30
Chocks, aircraft	52
Clearing Tool, (PVC)	50
Close out panel, 20mm	6
Close out panel, 40mm	7
Close out panel, 105mm	29
Emergency escape breathing device (EEBD)	3
Emergency radio	2
Emergency Rations (case)	37
Global sled, (A-16)	222
Gun box w/contents	80
Hot cup	3
Hydraulic fluid (case)	52
Ladder, maintenance	42
Ladder, paratroop	14
Life raft (20 member)	180
Liquid container w/o contents	17
Liquid container w/contents (2 gal)	25
Litter, wooden/canvas	14
LPU-5/P life vest	4
MAU 12	69
MA-1 seat kit	35
ML-4 seat kit	21
Mattress, foam w/cover	10
Multiple ejector rack (2ea)	382
Nitrogen cart (empty)	630
Nitrogen cart (full)	1100
Oil (case)	52
Oxygen bottle, portable w/harness	6
Parachute (chest)	16
Parachute harness (chest)	13
Pod (ECM) ALQ-131 (2ea.)	1430
Pod (IR) QRC 84-02A	235

Pod (ECM) QRC 80-01	635
Quick-don mask	2.5
Restraint harness w/safety strap	9
Sea marker light w/battery, matrix light	4/1
Seat, crash	33
Seat, troop (1 person)	3.5
Seat, troop (2 person)	7
Sentry Dawg	275
Smoke mask	3
Static display equipment	100
Survival vest	9
Tool kit, (AG)	9
Tool kit, (LM)	16
Water, container (small Igloo w/contents)	25
Water, container (large Igloo w/contents)	50
Windbreaker, ramp	22
20mm	0.66
40mm	4.87
105mm	43
105mm clearing cartridge (box of 2)	27
MK-25 Marker, marine	3.75
MK-206 Flare, decoy	0.333
RR-170/188 Chaff	0.643

Table 4.2. Munitions Packages.

	T-1	**T-2**	**T-3**	**P-1**	**P-2**	**P-3**	**D-1**	**D-2**	**C-1**
105mm									
HE M1 C432 PD/Delay	20	12	20	12	12	12	20	10	45
HE M1 C430 Proximity	0	8	0	4	4	4	0	10	45
WP M60 C433	0	5	0	0	0	0	0	0	10
Cartridge, clearing	2	2	2	2	2	2	2	2	2
40mm									
HEIP	96	96	96	80	80	80	96	144	256
AP/APT	0	32	0	0	0	0	0	0	0
20mm									
HEI	2000	2000	2000	1000	1000	1000	0	0	3000
HEI 7/1 Tracer	0	0	0	0	0	0	2000	2000	0
Chaff/Flares									
Chaff	0	0	0	0	0	360	0	0	360
Flare, decoy	0	0	240	0	240	240	0	240	240
MK-25 Marker, marine	0	0	0	0	0	0	0	0	24
Total Load Weight:	2675	3046	2803	1765	2093	2321	2675	3037	8001
Total Load Moment/1000:	1367	1608	1431	964	1028	1180	1367	1583	4343
Expendable Weight:	1880	2060	1862	1201	1273	1417	1790	1997	5826
Expendable Moment/1000:	1011	1111	972	666	702	798	936	1059	3203

NOTE: Munitions packages may be modified as required to meet mission directives.

T = Training
P = Proficiency
D = Demonstration
C = Combat

STEPHEN R. CONNELLY, Colonel, USAF
Director, Operations