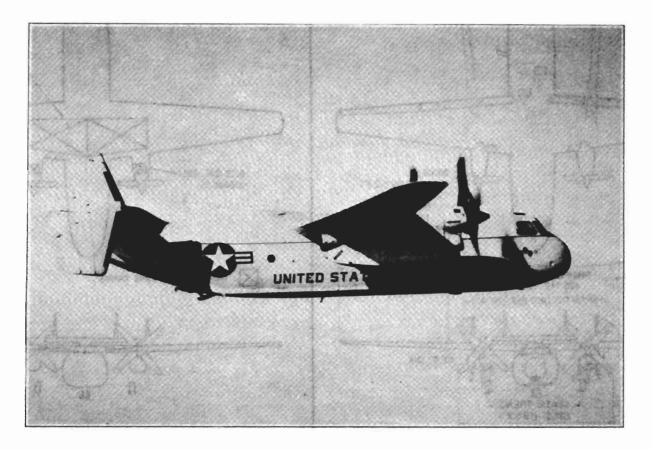
NAVAIR 00-110ATC2-2

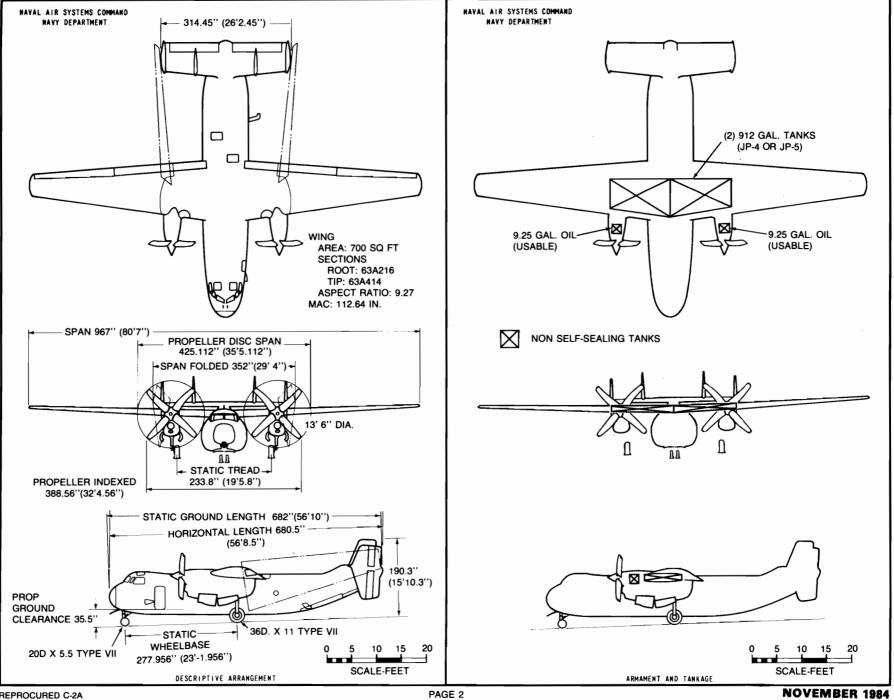


STANDARD AIRCRAFT CHARACTERISTICS

REPROCURED C-2A

GRUMMAN

All Inquiries Concerning Data In This Chart Should Be Directed to NAVAIR, Code AIR-53012



POWER PLANT

Number & Model	(2) T56-A-425
Manufacturer	Allison
Propeller Gear Patio	12.49:1
Number of Blades	4
Propeller Diameter	13 ft. 6 in.
Propeller Manufacturer	Hamilton Standard
Propeller Blade Design No.	54460-1

RATINGS

	ESHP	SHP	RPM
Take-Off	4910	4591	13,820
Military	4680	4368	13,820
Normal	4365	4061	13.820

Engine Specification No. 825-A Dated 1 June 1973

ELECTRONICS

co	MM	UN	IC/	١TI	ON	

COMMUNICATION	
UHF Communication (30W)	(2) AN/ARC-159A
VHF Communication	VHF — 20B
HF Communication	AN/ARC-190(V)
UHF Crypto	KY-58
HF Crypto	KY-75
Intercommunication	AN/AIC - 14A
Public Address System	TBD

NAVIGATION	
OMEGA	LTN-211
TACAN	AN/ARN-118
DOPPLER	AN/APN-233
UHF Auto Direction Finder	OA-8697/ARD
LF Auto Direction Finder	AN/ARN-83
VOR/ILS Glide Slope & Marker Beacon	(2) VIR-31A
Radar Beacon	AN/APN-202
Data Link	AN/ASW-25B
Receiver-Decoder	AN/ARA-63
Weather Radar	AN/APN-234
Attitude Heading Reference System	(2) AN/ASN-116A AHRS
MISCELLANEOUS	
IFF Computer	KIT-1A/TSEC
IFF Transponder	AN/APX-72

MISSION AND DESCRIPTION

The Reprocured C-2A airplane, a carrier-based transport, is capable of carrying cargo or passengers, or a combination of both, for Carrier On-Board Delivery (COD). The maximum weight for payload and route support equipment combined is 10,000 lbs.

The C-2A is operable from CV-41 and superior class carriers. It is catapulted with a nose-tow catapult system operable from C7 and superior catapults and may be arrested with MK7 MOD 2 and superior arresting gears. The overall dimensions of the C-2A together with automatic wing folding permit hangar deck servicing. An auxiliary power plant installation provides engine starting self-sufficiency.

The C-2A has a wide range of communications and radio navigation equipment which are compatible with both military and civil airways on a world-wide basis. Communications equipment include HF, VHF, and UHF. Radio navigation aids include DOP-PLER, TACAN, dual VOR, UHF/DF, LF/ADF, weather radar, and two carrier approach systems.

The crew consists of a pilot and co-pilot/navigator. An automatic flight control system provides directional stability augmentation, three axis attitude control and altitude hold control. Each mode is engaged manually by the pilot.

The airplane is equipped with modified Fowler type flaps and hydraulically powered irreversible flight controls with an independent hydraulic backup system.

REPROCUREMENT

First.	Flight	(Estimated)

January 1985

DIMENSIONS

Wing Span	80 ft. 7 in.
Folded Wing Span	29 ft. 4 in.
Propeller Indexed Span	32 ft. 4.56 in.
Propeller Disc Span	35 ft. 5.112 in.
Length	56 ft. 10 in.
Height	15 ft. 10.5 in.
Tread	19 ft. 5.8 in.
Propeller Ground Clearance	35.5 in.

WEIGHTS

LOADING	s	LB.	
Empty		33,746	
Basic		34,139	
Design		52,540	
Combat (60% Fuel)	49,394	
Take-Off	Field (Max.) Catapult (Max.)	54,354	
Landing	Field (Max.) Arrestment (Max.)	50,060 49,058	
C-2A F Deliver	is Are Based on Detail Reprocurement of Carr by (COD) Aircraft, SD-5 28 January 1982.	ier On-Board	

FUEL AND OIL

FUEL

No. of TANKS	GAL. (usable)	LBS. (JP-5)	LOCATION
2 integral	1824	12,400	C.S. Wing

Fuel Grade Fuel Specification JP-4 or JP-5 MIL-J-5624

OIL

Capacity	9.25 gallons/engine
Specification	MIL-L-23699

CARGO/PASSENGER CAPACITIES

The maximum weight for payload and route support equipment (RSE) combined is 10,000 lbs. Payload may be cargo or passengers, or combinations thereof. RSE consists of items such as the cargo cage or passenger seats; weights are summarized on the Notes page.

Maximum Cargo/Passenger Loads

maximam cargon accompc.	
Cargo and RSE	10,000 lb
28 Passengers and all RSE	8,227 lb
12 Litter Patients	6,044 lb
All RSE	3,189 lb
Flight Loading Floor Limit	average 300 lb/sq ft

Cargo Cage Crash Factor

(cargo and cage combined is 10,000 lb) 20g's forward

Maximum Cargo Cage Envelope

Length	•	•	•	325 in.
Width				83 in.
Height				62 in.
Volume				862 cu ft

Maximum Entrance Dimensions

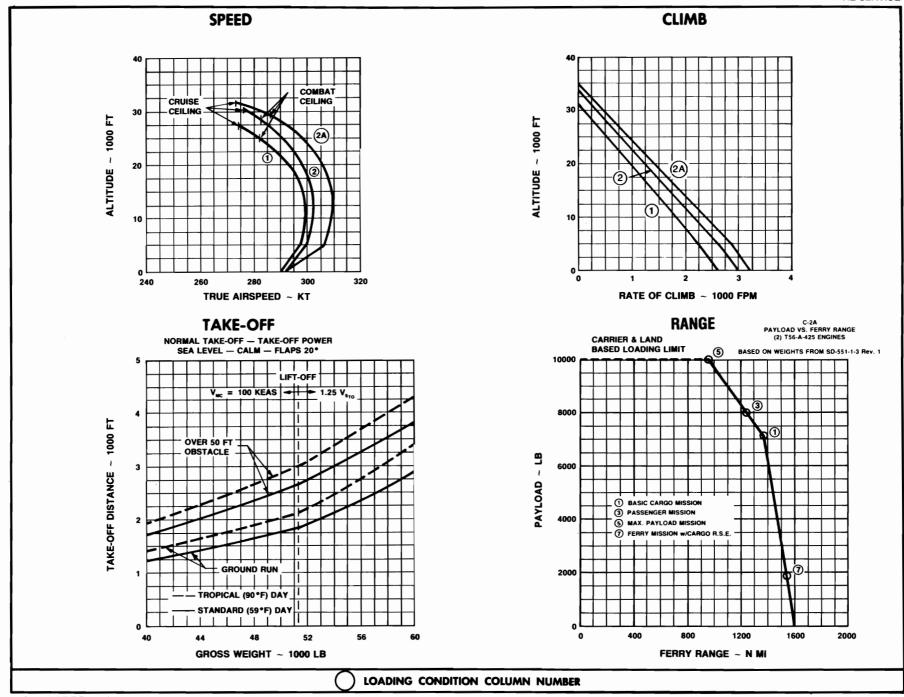
Vidth	88 in.
-leight	65 in.

PERFORMANCE SUMMARY (F)						
		BASIC CARGO MISSION 1 7240 lbs. Includes RSE		PASSENGER MISSION 3 28 Passengers & RSE	MAX. PAYLOAD MISSION 5 10000 lb. inc. RSE	FERRY MISSION W/CARGO RSE
TAKE-OFF WEIGHT	lb.	54.3	54	54,354	54,354	48916
Fuel internal/external (JP-5)	lb./lb.	12,40		11,638	9640	12400
Payload & Route Support Egpt (RSE) (A)	lb.	724	0	8002 (B)	10000	1802
Route Support Equipment	lb.	Variable	e (A)	1842	1802	1802
	er sq. ft.	77.0		77.6	77.6	69.9
Stall speed — zero thrust	kn.	104.	7	104.7	104.7	99.3
Take-off run of S.L. — standard day	ft.	218		2180	2180	1710
Take-off run at S.L. — 90°F day	ft.	253		2530	2530	1975
Take-off to clear 50 ft. — standard day	ft.	306	<u> </u>	3060	3060	2450
Take-off to clear 50 ft 90°F day	ft.	346		3460	3460	2760
Max. speed/altitude — true airspeed (C)	kn./ft.	300/12		300/12000	300/12000	303/13000
Rate of climb at S.L. (C)	fpm.	261		2610	2610	3040
Time: S.L. to 20,000 ft. (C) (D)	min.	11.0		11.6	11.6	9.4
Time: S.L. to 30,000 ft. (C) (D)	min.	32.0		32.0	32.0	21.7
Service ceiling (100 fpm) (C)	ft.	30,00		30000	30000	33000
Combat range	n.mi.	135		1243	961	1527_
Average cruising speed	kn.	251		251	251	249
Cruising altitude(s)	ft.	28700/3	4100	28700/33700	28700/32550	33000/37400
COMBAT LOADING CONDITION (6	0% FUEL)	2	(2A)			
COMBAT WEIGHT	lb.	49,394	49.394			
Engine power		Normal	Military			
Fuel (JP-5)	lb.	7440	7440			
Combat speed/cruise altitude - true airspeed	kn./ft.	269/30500	280/30500			
Rate of climb/cruise altitude	fpm/ft.	300/30500	420/30500			
Combat ceiling (500 fpm)	ft.	28,800	29,600			
Rate of climb at S.L.	fpm.	3000	3200			
Max. speed at S.L.	kn.	292	292			
Max. Speed/altitude — true airspeed	kn./ft.	303/13000	310/13500			
LANDING WEIGHT	lb.	4364	5	44375	46291	38158
Fuel	lb.	169	1	1659	1577	1642
Stall speed — flight idle/approach power	kn./kn.	81.9/7		82.9/79.1	85.0/80.9	74.7/73.5
Landing distance-groundroll/over 50 ft. obst. (I		1428/2		1436/2276	1500/2360	1363/2205

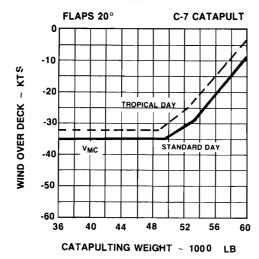
PERFORMANCE BASIS: Calculated data based on BIS and performance demonstration flight test results and on specification engine data with no increase in fuel consumption.

NOTES

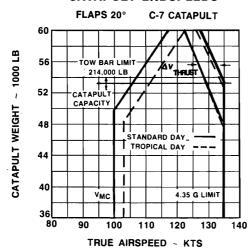
- (A) Maximum weight for payload and route support equipment (RSE) combined is 6776 lb. Payload capacity is dependent upon selection of RSE. See Notes page for summary of RSE weights.
- (B) Passenger, including life preserver, weighs 180 lb.
- (C) Normal rated power.
- (D) At take-off gross weight, minus fuel for warmup, taxi, take-off and climb.
- (E) Landing distance brakes and reverse thrust
- (F) The performance data shown is representative of the Reprocured C-2A as defined in Detail Specification SD551-1-3 Rev. 1. Operation at the structural design Take-Off Gross Weight of 57,500 lb (pending NAWAIR approval) permits 9,922 lb payload for this design mission.



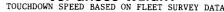
MINIMUM WIND OVER DECK REQUIRED FOR CATAPULTING VS. GROSS WEIGHT

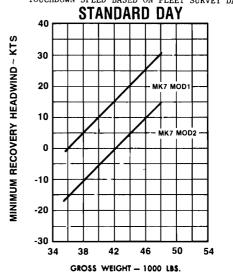


CATAPULT ENDSPEEDS

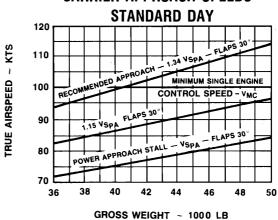


MINIMUM WIND OVER DECK REQUIRED FOR ARRESTING VS. GROSS WEIGHT TOUCHDOWN SPEED BASED ON FLEET SURVEY DATA



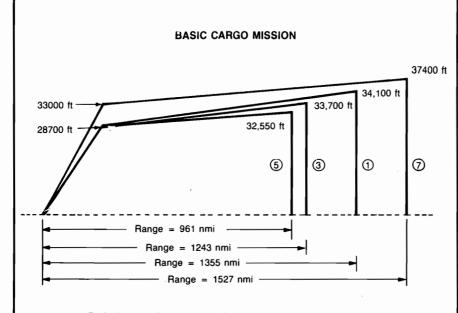


CARRIER APPROACH SPEEDS



NOTES

THESE DATA ARE FOR PLANNING ONLY. CARRIER AIR OPERATIONS ARE PRESCRIBED BY AIRCRAFT LAUNCHING BULLETINS, AIRCRAFT RECOVERY BULLETINS, NATOPS FLIGHT MANUAL, AND CVA CVS NATOPS MANUAL.



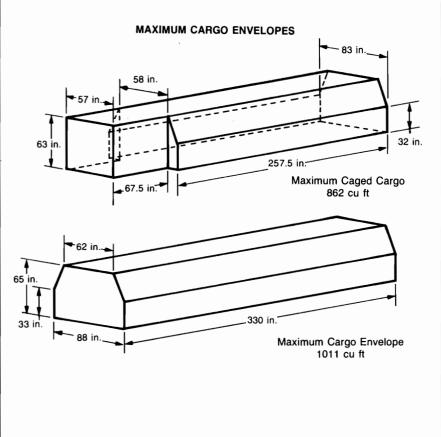
Fuel allowance for starting engines, taxi, take-off and accelerate to climb speed is the pounds of fuel used in five minutes with normal power at sea level.

Normal rated power climb on course to cruise ceiling.

Cruise at airspeed for maximum specific range at cruise ceiling utilizing available fuel.

Fuel allowance for reserve and landing is the sum of five per cent of the initial internal fuel and fuel required for thirty minutes at speed for maximum endurance at sea level.

○ LOADING CONDITION COLUMN NUMBER



WEIGHT SUMMARY ROUTE SUPPORT EQUIPMENT

Cargo Restraining and Handling Equipment	
Cargo Cage and Tiedown	1499 lb
Winch and Cargo Handling	239 lb
Treadways (2)	64 lb
Facilities for 28 Passengers	
Passenger Seats, 14 doubles @ 77 lb each	1078 lb
(4) Life Rafts—LRU-13/A @ 56.5 lb each, plus 9 lb stowage	235 lb
Additional LOX and Converter, Toilet, and Baggage Provisions	60 lb
Baggage Compartment & Panel	434 lb*

^{*420} lb of this weight common to cargo cage and tiedown weight

NAVAIR 00-110ATC2-1 SERVICE

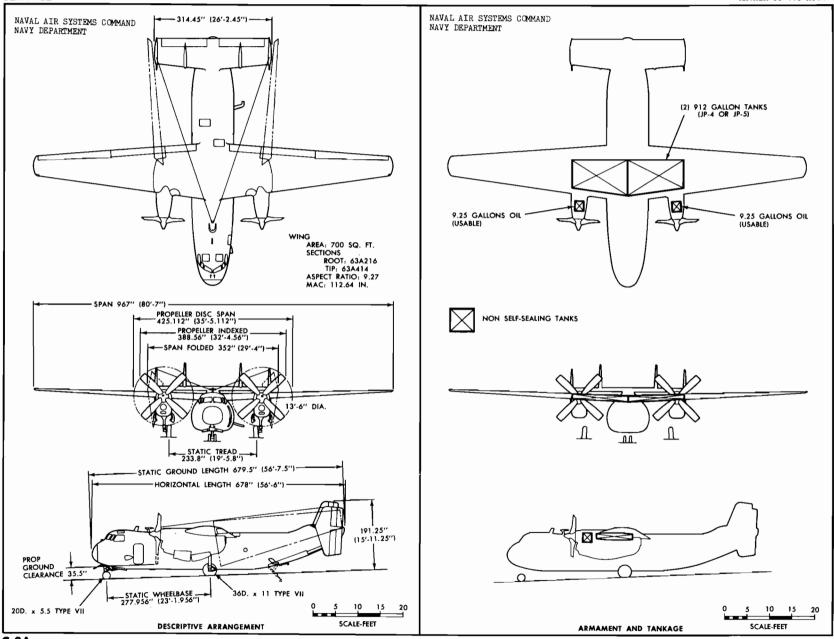


STANDARD AIRCRAFT CHARACTERISTICS

C-2A GREYHOUND

GRUMMAN

C-2A



C-2A

NAVAIR 00-110 ATC2-1

POWER PLANT

 Number & Model
 (2) T56-A-8A

 Manufacturer
 Allison

 Propeller Gear Ratio
 12.49 : 1

 Number of Blades
 4

 Propeller Diameter
 13 ft. 6 in.

 Propeller Manufacturer
 Aero Products

 Propeller Blade Design No.
 A6441 FN-248

RATINGS

	ESHP	SHP	RPM
Take-Off	4050	3755	13,820
Military	4050	3755	13,820
Normal	3730	3443	13,820

Engine Specification No. 458-B Dated 1 August 1960

ELECTRONICS

COMMUNICATION

NAVIGATION

 UHF Communications
 AN/ARC-51A

 VHF Communication & Navigation
 AN/ARN-87(V)

 HF Communications
 AN/ARC-94

Intercommunications ______ AN/AIC-14

LORAN	AN/ARN-81
TACAN	AN/ARN-52(V)
UHF/ADF Navigational Aid consisting of:	
UHF Auto Direction Finder	AN/ARA-25A
UHF Auxiliary Communications Receiver	AN/ARR-40

UHF Communications ______
VHF Communication & Navigation:

Dual VOR and ILS Localizer_____AN/ARN-87(V)

— AN/ARC-51A

ILS Glide Slope & Marker Reocan ______ R-844/ARN-58

LF Auto Direction Finder______ AN/ARN-59
Compass System _____ MA-1

Rador Altimeter ______AN/APN-141(V)

IFF/SIF Transpander _____ AN/APX-64(V)

Automatic Flight Control System AN/ASW-15
Air Dato Computer A/A24G-13

MISSION AND DESCRIPTION

The C-2A airplane, a carrier-based transport, is capable of carrying high-priority cargo or passengers, ar a cambination of both, for Carrier On-Board Delivery (COD). Litter patients may also be accammodated. Among the high-priority items the C-2A can deliver are special stores, jet engines and afterburners, as well as general cargo. The maximum weight for payload and route support equipment combined is 10,000 pounds. Cargo tiedown is facilitated by a cage system. This system could restrain the cargo during a crash condition of 20 g's forward; it also provides restraint for the catapulting and arresting loads encountered during carrier operation. The large aft carga ramp/door and powered winch facilitate fast turnaround time by straight-in rear cargo loading and unloading.

The airplane is operable from CVS-10, CVA-19, and superior class carriers equipped with H-8, C11-1, C-7 and C-13 catapults, and MK 5 Mod-3, MK 7 Mod-1 ar MK 7 Mod-2 arresting geor. The C-2A is catapulted with a nose-tow catapult system. The overoll dimensions of the C-2A together with outamatic wing folding permit hangar deck servicing. An auxiliary power plant installation provides engine starting self-sufficiency.

The C-2A hos a wide range of communications and radio navigation equipment which are compatible with both military and civil oirways on a world-wide basis. Communications equipment include HF, VHF, and UHF; radio navigation aids include LORAN, TACAN, dual VOR, UHF/DF, LF/ADF, and provisions for weather radar.

The crew consists of a pilot and a copilot/navigator. An automatic flight control system provides crew relief by means of a moneuvering autopilot with flight path and altitude relief modes as well as TACAN coupling.

The airplane is equipped with modified Fowler type flaps, and hydraulically powered irreversible flight controls with an independent hydroulic backup system.

DEVELOPMENT

First Flight	November 1964
Service Use	December 1966

DIMENSIONS

Wing Span	80 ft. 7 in.
Folded Wing Span	29 ft. 4 in.
Propeller Indexed Span	32 ft. 4.56 in.
Propeller Disc Span	
Length	56 ft. 7.5 in.
Height	15 ft. 11.25 in.
Tread	19 ft. 5.8 in.
Propeller Ground Clearance	35.5 in.

WEIGHTS

ı			
١	LOADINGS	LBS.	L.F.
ĺ	Empty	31,369	
l	Basic	35,014	
l	Design	49,394	2.6
l	Combat (60% fuel)	49,541	
l	(Field (maximum)	55,000	
l	Take-Off C-11 Catapult (basic design)	54,354	
l	Take-Off C-11 Catapult (basic design) H-8 Catapult (basic design)	54,354	
Į	, Field	51,000	
l	Landing MK 7 Arresting	46,000	
l	(max.) MK 5 Arresting	44,154	
ı			

Weights are bosed on weighing of C-2A Factory No. 19 (MIL No. 155124-15) as reported in the Actual Weight and Balance Report, WT-123R-505 dated 3 January 1968.

FUEL AND OIL

No. of TANKS	GALS. (usable)	LBS. (JP-5)	LOCATION			
2 Integral	1824	12,400	C.S. Wing			
Fuel Grade			JP-4 or JP-5			
Fuel Specification	on		_ MIL-J-5624			
OIL						
Capacity (139 I	bs. usable)	9.25 gd	llons/engine			
Specification			MIL-L-7808			

CARGO/PASSENGER CAPACITIES

The maximum weight for payload and route support equipment (RSE) combined is 10,000 pounds. Poyload may be cargo or passengers, or combinations thereof. RSE consists of items such as the cargo cage or passenger seats; weights are summarized on the Notes page.

Maximum Cargo/Passenger Loads

Cargo and RSE	10,000 lbs.
28 Passengers and all RSE	
12 Litter Patients	5999 lbs.
All RSE	3457 lbs.

Flight Loading Floor Limit _____ average 300 lbs./sq. ft.

Cargo Cage Crash Factor

(cargo and cage combined is 10,000 lbs.)_20 g's forward

Maximum Cargo Cage Envelope

Length	325 in.
Width	57 in.
Height	63 in.
Volume	67.5 cu. ft.

Maximum Entrance Dimensions

Width	88 in
Height	65 in.

P	OWER	PLANT		MISSION AND DESCRIPTION			
Number & Model _ Manufacturer _ Propeller Gear Rat Number of Blades _ Propeller Diameter Propeller Manufact Propeller Blade Des Take-Off Military Normal	io	SHP 3755 3755 3443	Allison 12.49:1 4 13 ft. 6 in. Aero Products A6441 rN-248 RPM 13,820 13,820 13,820	The C-2A airplane, a carrier-based transport, is capable of ling high-priority cargo or passengers, or a combination of for Carrier On-Board Delivery (COD). Litter patients may a accommodated. Among the high-priority items the C-2A can are special stores, jet engines and afterburners, as well as a cargo. The maximum weight for payload and route support equiponisms is 10,000 paunds. Cargo tiedown is facilitated by a system. This system could restrain the cargo during a crash coof 20 g's forward; it also provides restraint for the catapultic arresting loads encountered during carrier operation. The lacargo ramp/door and powered winch facilitate fast turnarour by straight-in rear corgo loading and unloading. The airplane is operable from CVS-10, CVA-19, and superic carriers equipped with H-8, C11-1, C-7 and C-13 catapults, and Mod-3, MK 7 Mod-1 or MK 7 Mod-2 arresting gear. The C-2A is pulted with a nose-tow catapult system. The overall dimensions			
_	Dated 1 Aug			C-2A tagether with automatic wing folding permit hange			
	ELECTRO	NICS		servicing. An auxiliary power plant installation provides engine s self-sufficiency.			
COMMUNICATION	-			The C-2A has a wide range of communications and radio nav equipment which are compatible with both military and civil of			
UHF Communication VHF Communication	& Navigatio	on	_AN/ARN-87(V)	on a world-wide basis. Communications equipment include HF and UHF; radio navigotion aids include LORAN, TACAN, dua UHF/DF, LF/ADF, and provisions for weather radar.			
HF Communications Intercommunications			. ,	The crew consists of a pilot and a copilot/navigator. An autiflight control system provides crew relief by means of a maner autopilot with flight path and altitude relief modes as well as I			
NAVIGATION				coupling.			
LORAN			ll.	The airplane is equipped with modified Fowler type flap hydraulically powered irreversible flight controls with an indep			
			_AM\AKM-32(4)	hydraulic backup system.			
UHF Auxiliary Co	on Finder ommunication	s Receiver_	AN/ARA-25A AN/ARR-40 AN/ARC-51A	DEVELOPMENT First Flight Novembe Service Use Decembe			
VHF Communication Dual VOR and II	& Navigatio	in:	_AN/ARN-87(V)	DIMENSIONS			
ILS Glide Slope & M			I				
LF Auto Direction Fir			.,	Wina Span 80 (

MA-1

AN/APN-141(V)

AN/APX-64(V)

_AN/A\$W-15 __A/A24G-13

	2EKAICE					
MISSION AND DESCRIPTION	WEIGHTS					
The C-2A airplane, a carrier-based transport, is capable of carry- ing high-priority cargo or passengers, or a combination of both,	LOADINGS LBS. L.F. Empty 31,369					
for Carrier On-Board Delivery (COD) Litter patients may also be accommodated. Among the high-priority items the C-2A can deliver	Basic 35,014 Design 49,394 2.65					
are special stores, jet engines and afterburners, as well as general cargo. The maximum weight for payload and route support equipment	Combat (60% fuel)					
combined is 10,000 paunds. Cargo tiedown is facilitated by a cage system. This system could restrain the cargo during a crash condition of 20 g's forward; it also provides restraint for the catapulting and	H-B Catapult (basic design) 54,354 Field 51,000					
or 20 g s founds; it also provides restraint an file carepaining and arresting loads encountered during carrier operation. The large aft cargo ramp/door and powered winch facilitate fast turnaround time	Field 51,000 Londing MK 7 Arresting 46,000 (max.) MK 5 Arresting 44,154					
by straight-in rear corgo loading and unloading. The airplane is operable from CVS-10, CVA-19, and superior class	Weights are based on weighing of C-2A Factory No. 19 (MIL No. 155124-15) as reported in the Actual Weight and Balance Report, WT-123R-505 dated 3 January 1968.					
carriers equipped with H-8, C11-1, C-7 and C-13 catapults, and MK 5 Mod-3, MK 7 Mod-1 ar MK 7 Mod-2 arresting gear. The C-2A is cata-	FUEL AND OIL					
pulted with a nose-tow cataputs system. The overall dimensions of the C-2A together with automatic wing folding permit hangar deck	No. of TANKS GALS. (usuble) LBS, (JP-5) LOCATION					
servicing. An auxiliary power plant installation provides engine starting self-sufficiency.	2 Integral 1824 12,400 C.S. Wing					
The C-2A has a wide range of communications and radio navigation equipment which are compatible with both military and civil airways	Fuel Grade					
on a world-wide basis. Communications equipment include HF, VHF, and UHF; radio navigation aids include LORAN, TACAN, dual VOR.	OIL					
UHF/DF, LF/ADF, and provisions for weather radar.	Capacity (139 lbs. usable) 9.25 gallons/engine Specification MIL-L-7808					
The crew consists of a pilot and a copilot/novigator. An automatic flight control system provides crew relief by means of a maneuvering autopilot with flight path and altitude relief modes as well as TACAN	CARGO/PASSENGER CAPACITIES					
coupling.	The maximum weight for paylood and route support equipment (RSE) combined is 10,000 pounds. Poyload may					
The airplane is equipped with modified Fowler type flaps, and hydraulically powered irreversible flight controls with an independent hydraulic backup system.	be cargo or passengers, or combinations thereof. RSE con- sists of items such as the cargo cage or passenger seats; weights are summarized on the Notes page.					
DEVELOPMENT	Maximum Carga/Passenger Loads Cargo and RSE10,000 lbs.					
First Flight November 1964 Service Use December 1966	28 Passengers and all RSE 8497 lbs. 12 Litter Patients 5999 lbs.					
DIMENSIONS	All RSE 3457 lbs.					
	Flight Loading Floor Limit average 300 lbs./sq. ft. Cargo Cage Crosh Factor					
Wing Spon 80 ft. 7 in.	(cargo and cage combined is 10,000 lbs.) _ 20 g's forward					
Folded Wing Spon 29 ft. 4 in.	Maximum Carga Cage Envelope Length					
Propeller Indexed Span 32 ft. 4.56 in. Propeller Disc Span 35 ft. 5.112 in.	Width					
Length 56 ft. 7.5 in.	Height 63 in.					
Height15 ft. 11.25 in.	Valume 675 cu. ft.					
Tread 19 ft. 5.8 in.	Maximum Entrance Dimensions					
Propeller Ground Clearance 35.5 in.	Width					

Height _

Compass System.

Radar Altimeter ___

IFF/SIF Transponder_

Air Data Computer___

Automatic Flight Control System_

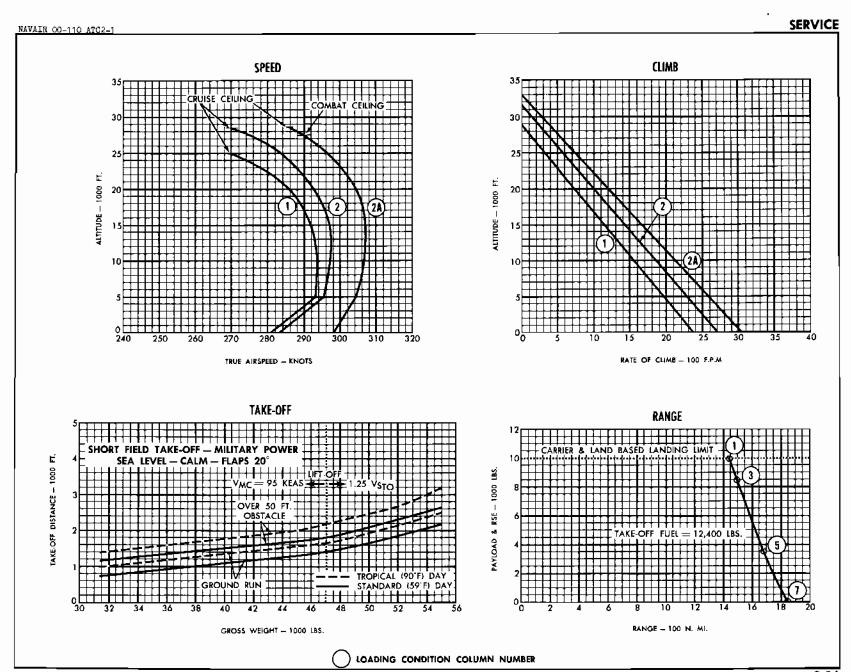
	P	ERFORMANC	CE SUMMARY					
TAKE-OFF LOADING CONDITION	1 1 1 1	RGO MISSION Includes RSE	PASSENGER MISSION 28 Passengers and RSE	FERRY MISSION With all RSE	7 FERRY MISSION Without RSE			
TAKE-OFF WEIGHT	54	,501	52,99B	47,958	44,501			
Fuel (JP-5)	12	400	1 2,400	12,400	12,400			
Payload & Route Support Equipment (RSE) (A)	10,	,000	8497 (B)	3457	-			
Route Support Equipment	. Var	iable (A)	3457	3457	-			
Wing looding (b. per sq. f	7.	7.9	75.7	68.5	63.6			
Stall speed — zero thrust kr	j. 9	8.0	96.9	92.0	88.6			
Take-off run at S.L. — standard day	1. 2	20	1950	1480	1230			
Take-off run at S.L. — 90 'F day	1. 2.	(40	2270	1795	1 530			
Take-off to clear 50 ft. — standard day f	2:	570	2400	1920	1650			
Take-off to clear 50 ft. — 90°F day). 3 ⁻	00	2890	2285	1950			
Maximum speed/altitude — true airspeed (C) kn./f	294/	10,000	296/10,500	299/10,500	300/13,000			
Rate of climb at 5.L. (C) fpm	1. 2:	340	2450	2800	3130			
Time: \$.L. to 20,000 ft. (C) (D) mir	1.	4.0	12.5	10.5	9.5			
Time: S.L. to 30,000 ft. (C)(D) mir	. 4	1.0 (E)	41.0 (E)	26.0	21,0			
Service ceiting (100 fpm) (C) f	. 28	,600	29,500	32,500	34,500			
Combat range n. m	i. 1	142	1492	1679	1841			
Average cruising speed ki	1. 2	59	259	260	260			
Cruising altitude(s)	26,400	/32,000	27,250/33,000	30,250/36,400	32,350/39,000			
COMBAT LOADING CONDITION (60% FUEL)	2	2 A	4	6	8			
COMBAT WEIGHT	49,541	49,541		_				
Engine power	Normal	Military	_					
Fuel (JP-5)	7440	7440	-	-	-			
Maximum speed/cruise altitude — true airspeed kn./f	7. 272/28,300	287/28,300	-	-	-			
Rate of climb/cruise altitude fpm/s	r. 300/28,300	440/28,300	_	_	-			
Combat ceiling (500 fpm)	ł. 26,000	27,500	-	-	_			
Rate of climb at S.L. fpr	n. 2700	3030	-	_				
Maximum speed at S.L, k	283	298	-	-	-			
Maximum speed/altitude — true airspeed kn./	1. 297/12,000	307/13,500	_	-	_			
LANDING WEIGHT	43	,651	42,128	37,058	33,601			
Fuel	j. 1:	550	1530	1500	1500			
Stall speed — flight idle/approach power kn./k	n. 91.0	/76.2	88.9/75.0	81.1/70.4	76.0/67.1			
Landing distance-ground roll/over 50 ft. obst. (F) ft./	1650	/2330	1590/2250	1400/2005	1270/1830			
No.								

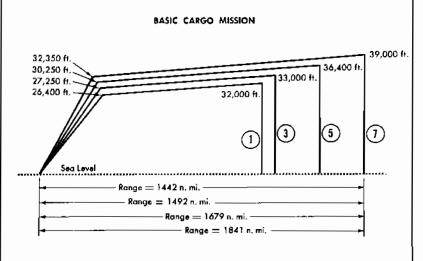
PERFORMANCE BASIS: Calculated data based on BIS and performance demonstration flight test results and on calibrated engine data with no increase in fuel consumption.

SPOTTING: A total of 45 airplanes can be accommodated on the flight and hongar decks of a CVS-10 class angled deck carrier.

NOTES

- (A) Maximum weight for payload and route support equipment (RSE) combined is 10,000 pounds. Payload capacity is dependent upon selection of RSE. See Nates page for summary of RSE weights.
- (B) Passenger, including life preserver, weighs 180 pounds.
- (C) Normal rated power.
- (D) At take-off gross weight, minus fuel for warm-up, taxi, take-off and climb.
- (E) Time to service ceiling.
- (F) Landing distance brakes and reverse thrust





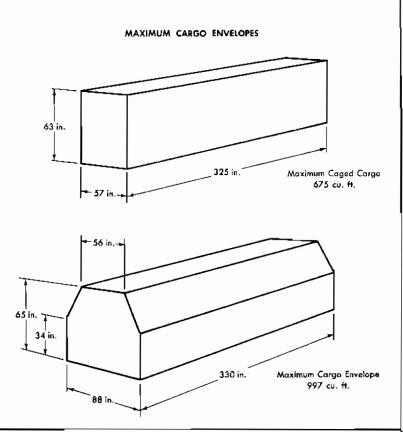
Fuel allowance for starting engines, taxi, take-off and accelerate to climb speed is the pounds of fuel used in five minutes with normal power at sea level.

Normal rated power climb on course to cruise ceiling.

Cruise at airspeed for maximum specific range at cruise ceiling utilizing available fuel.

Fuel allowance for reserve and landing is the sum of five per cent of the initial internal fuel and fuel required for thirty minutes at speed for maximum endurance at sea level.

LOADING CONDITION COLUMN NUMBER

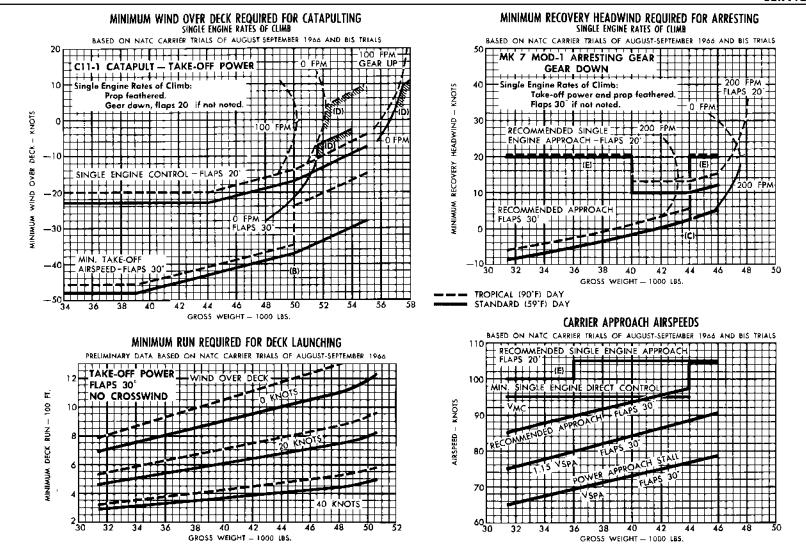


WEIGHT SUMMARY ROUTE SUPPORT EQUIPMENT

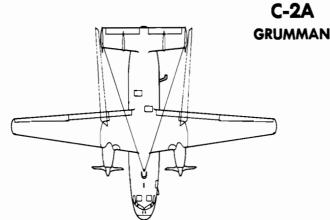
Fixed Equipment	
APU and Self-Starting Egpt.	367 lbs.
LORAN and Charts	50 lbs.
Cargo Restraining and Handling Equipment	
Cargo Cage and Tiedown	1420 lbs.
Winch and Cargo Handling	201 lbs.
Facilities for 28 Passengers	
Passenger Seats, 14 doubles @ 66 lbs. each	924 lbs.
(4) Life Rafts — MK 7 @ 103 lbs. each, plus 9 lbs. stowage	421 lbs.
Additional LOX and Converter, Toilet, and Baggage Provisions	74 lbs.

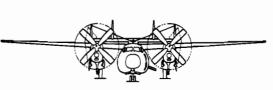
NAVAIR 00-110ATC2-1

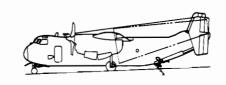
SERVICE



- (A) These data are for planning only. Carrier oir operations are prescribed by Aircraft Launching Bulletins, Aircraft Recovery Bulletins, NATOPS Flight Monuol, and CVA CVS NATOPS Manual.
- (B) C11-1 Catapult. Maximum endspeeds are limited by aircroft og drag acceleration limit below 50,000 pounds and catapult capacity above 50,000 pounds.
- (C) MK 7 Mod-1 Arresting Gear with sheave dampers, 95 ft. span. Maximum engaging speeds are limited by aircraft og drag acceleration limit below 44,000 pounds and by aircraft hook strength above 44,000 pounds.
- (D) Single engine flight in this region incurs sink rates with full power while on the back side of the speed-power required curve.
- (E) Twenty knots minimum recovery headwind is required for the recommended single engine approach airspeed, with flaps 20°, to preclude possible nose gear first landings. In the 36,000-40,000 pounds weight range, the recommended single engine approach airspeed is 105 knots; below 36,000 pounds, the single engine approach airspeed has been lawered to 100 knots. Above 44,000 pounds, with flaps 30°, the twenty knots minimum recovery headwind is also required for the 105 knot recommended approach airspeed.







WING AREA:

700 sq. ft.

WING SPAN: 80 ft. 7 in.

LENGTH:

56 ft. 7.5 in.

HEIGHT: 15 ft. 11.25 in.

AVAILABILITY NUMBER AVAILABLE		PROCUREMENT NUMBER DELIVERED IN FISCAL YEARS					
ACTIVE	RESERVE	TOTAL					
							,

STATUS

First Flight .

November 1964

Service Use (estimated)

September 1966

ENGINES

(2) T56-A-8A Allison Take-Off:

4050 ESHP at 13,820 RPM

Military:

4050 ESHP at 13,820 RPM

Normal:

3730 ESHP at 13,820 RPM

FEATURES

The C-2A aircraft is capable of transporting high-priority cargo or passengers, or a combination of both, for Carrier On-Board Delivery (COD). Among the high-priority items the C-2A can deliver are special stores, jet engines, and afterburners, as well as general cargo. Payload and special equipment can be carried to the extent that the combination does not exceed 10,000 pounds. The large aft cargo ramp/door and powered winch facilitate fast turnaround time by straight-in rear cargo loading and unloading.

The airplane is operable from CVS-10, CVA-19, and superior class carriers equipped with H-8, C11-1, C-7 and C-13 catapults, and MK 5 Mod-3, MK 7 Mod-1 or MK 7 Mod-2 arresting gear. The C-2A is catapulted with a nose-tow catapult system. The overall dimensions of the C-2A together with automatic wing folding permit hangar deck servicing. An auxiliary power plant installation provides engine starting self-sufficiency.

The C-2A has a wide range of communications and radio navigation equipment which are compatible with both military and civil airways on a world-wide basis. Communications equipment include HF, VHF, and UHF; radio navigation aids include LORAN, TACAN, dual VOR, UHF/DF, LF/ADF, and provisions for weather radar.

The crew consists of a pilot and a copilot/navigator. An automatic flight control system provides crew relief by means of a maneuvering autopilot with flight path and altitude relief modes as well as TACAN coupling.

The airplane is equipped with modified Fowler type flaps, and hydraulically powered irreversible flight controls with an independent hydraulic backup system.

CARGO CAPACITIES

The maximum weight allowance for payload ond special equipment combined is 10,000 pounds. This allowance may consist of: cargo, the cargo cage, securing and handling equipment such as the powered winch; passengers and baggage, passenger seats, parachutes, life rafts, and occommodations; auxiliary power plant, LORAN, and navigation gear.

The maximum caged envelope is as follows:

 Length
 27 ft. 1 in.

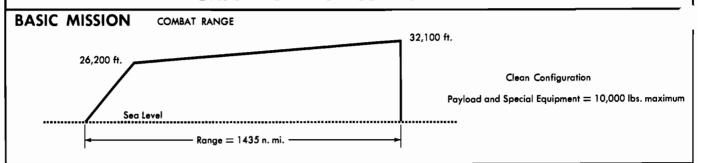
 Width
 4 ft. 9 in.

 Height
 5 ft. 3 in.

 Volume
 675 cu. ft.

The average limit floor load is 300 pounds per square foot.

CHARACTERISTICS SUMMARY



PERFORMANCE

COMBAT RADIUS		COMBA	T RANGE	SPEED	
		1435 naut. mi. 258 knots avg.		293 knots at 10,300 ft.	
		Take-O	ne = 5.7 hrs. ff Weight Ceiling	Take-Off Weight Normal Rated Power	
CLIMB		CEI	LING	TAKE-OFF	
2330 ft./min. Sea Level, Take-Off Weight Normal Rated Power		100 ft./min.,	800 ft. Fake-Off Weight Rated Power	1395 ft. Standard Day 1668 ft. 89°F Day Ground Run	
				2105 ft. Standard Day 2525 ft. 89°F Day	
		100	21172	To Clear 50 ft. Obstacle	
LOAD		WEI	GHTS	STALLING SPEED	
Fuel	Gal.	Empty	31,096 lbs.	V _{SPA} = 76 knots Full Flaps, Approach Power Landing Weight	
12,400 lbs.	1824	Combat	49,274 lbs.	TIME TO CLIMB	
		Landing	43,376 lbs.	To Service Ceiling in 35 min.	
		Take-Off	54,234 lbs.	Take-Off Weight Normal Rated Power	

NOTES

- Calculated data based on flight test demonstration drag, and calibrated engines with no increase in fuel consumption.
- Weights are based on Weight and Balance Report No. 123R-501 dated 23 January 1965, adjusted for applicable changes.
- Reasons for changes in performance from that shown in the October 1964 Characteristics Summary chart are:
 - a Weight basis has changed from estimated to the actual weighing of No. 2 C-2A.
 - b Drag basis has changed from estimated to flight test.
 - c Engine performance basis has changed from a specification engine to a calibrated engine.
- A total of 45 airplanes can be accommodated on the flight and hangar decks of a CVS-10 class angled deck carrier.