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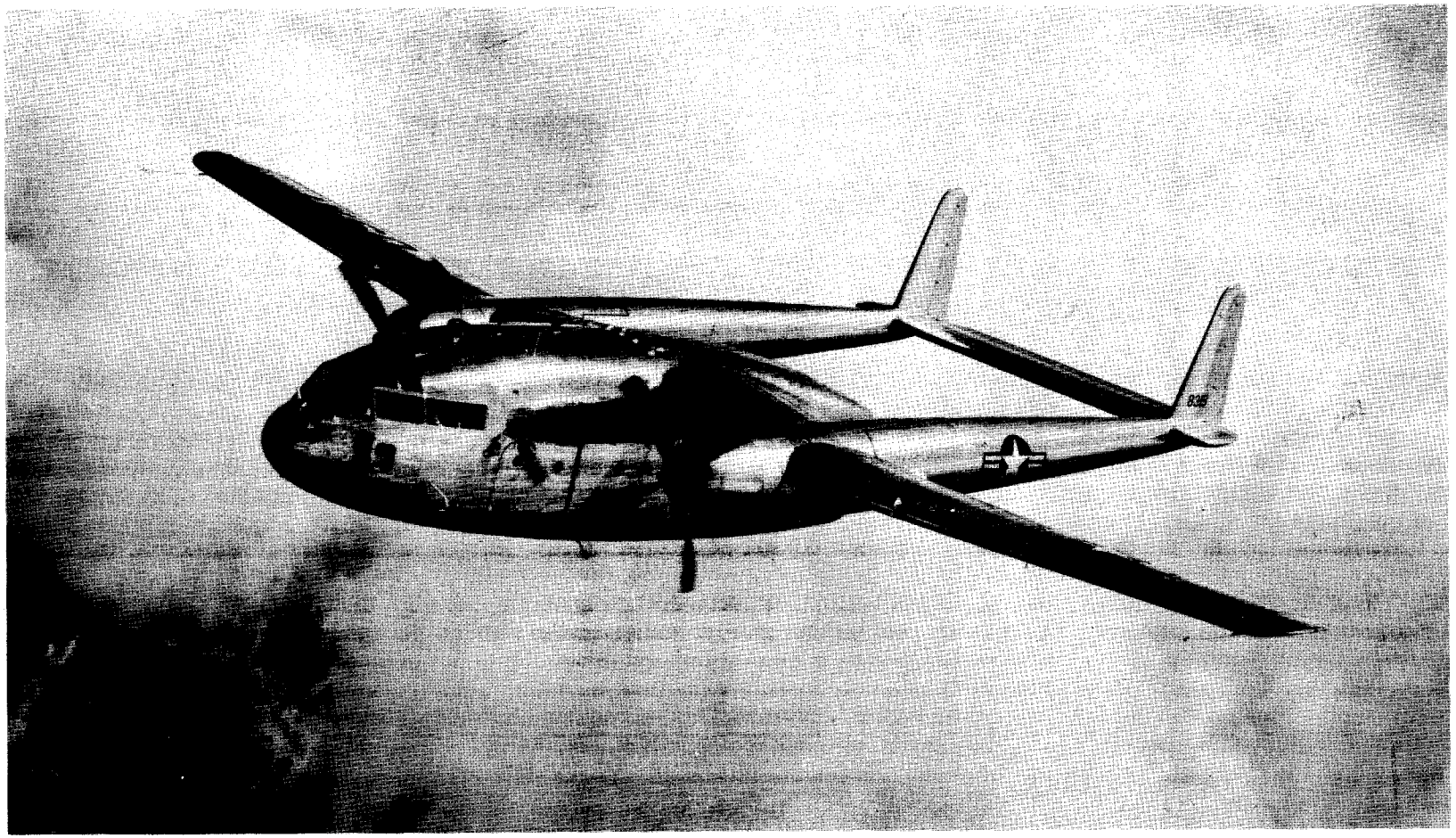

STANDARD AIRCRAFT CHARACTERISTICS

R4Q-1

FAIRCHILD

Standard Aircraft Characteristics NAVAER 1335A (REV. 1-49)

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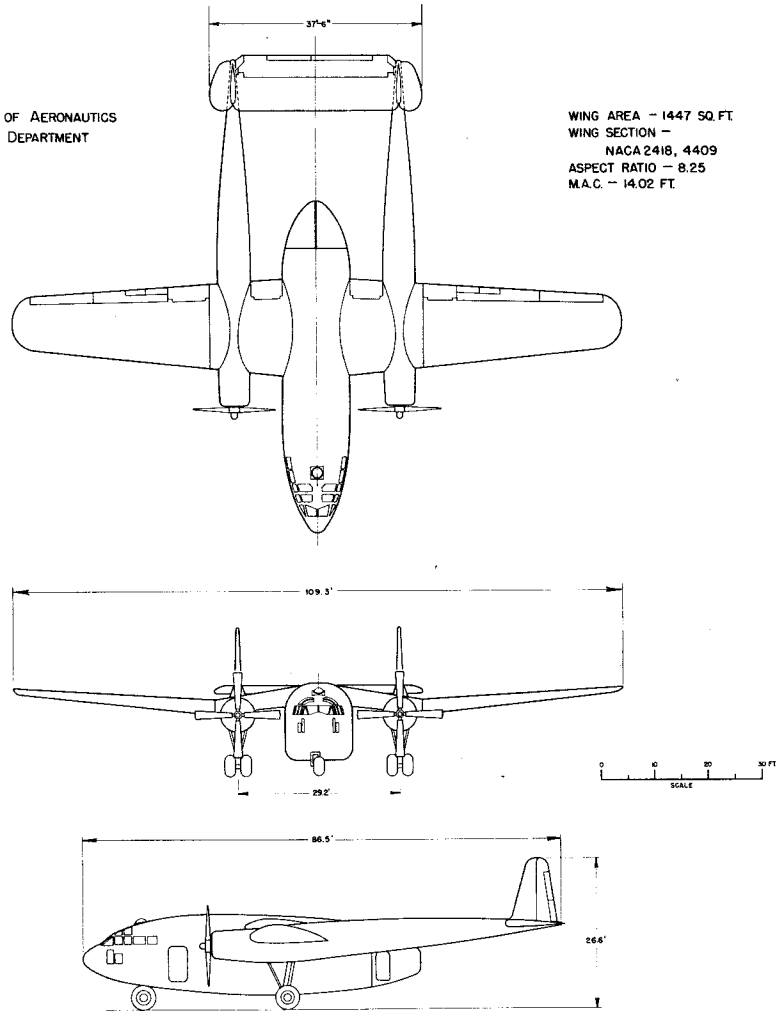
BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA – 1447 SQ. FT.
WING SECTION –
NACA 2418, 4409
ASPECT RATIO – 8.25
M.A.C. – 14.02 FT.



DESCRIPTIVE ARRANGEMENT

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MISSION AND DESCRIPTION

The tactical mission of the R4Q-1 is to transport cargo, personnel, litter patients, airborne supplies, and mechanized equipment. Provisions are made to glider tow.

Crew of five includes pilot, co-pilot, navigator, radio operator, and crew chief. No combat protection is provided. The large rear doors open to maximum cargo compartment dimensions to provide rapid unobstructed loading and unloading of cargo. Paracans may be dropped in flight through doors in the floor of the forward cargo compartment.

Fuel cells are bladder type.

WEIGHTS

Loadings	Lbs.	L.F.
EMPTY	37,691	
BASIC	38,065	
DESIGN	64,000	3.0
MAX.T.O.	71,800	
MAX.LAND	71,800	

All weights are estimated.

POWER PLANT

NO. & MODEL.....(2) R-4360-20
MFR.....Pratt & Whitney
SUPERCH.....1 Stg., Var. Spd.
PROP. GEAR RATIO.....0.425
PROP. MFR.....Ham. Std.
PROP. DES. NO.....2H17F3-24R
NO. BL./DIA.....4/15'-1¼"

RATINGS

	Bhp @	Rpm @	Alt.
T. O.	3,250	2,700	S. L.
MIL.	3,250	2,700	1,500
	2,500	2,700	17,000
NORMAL	2,650	2,550	6,000
	2,300	2,550	18,000

SPEC. NO. N-7056

FUEL AND OIL

Gals.	No. Tanks	Location
2,670	4	Wing

FUEL GRADE....115/145
FUEL SPEC.....AN-F-48

OIL

CAPACITY (Gals.).....120
GRADE.....1100-1120
SPEC.....AN-O-8

ACCOMODATIONS

CREW.....5
TROOPS (Normal).....42
TROOPS (Max.).....64
LITTERS.....35
ATTENDANTS.....4
MAX. CARGO.....30,000 lbs.
CARGO COMPARTMENT:
LENGTH.....36'-11"
WIDTH.....9'-10"
HEIGHT.....8'- 0"
REAR LOADING DOOR:
WIDTH.....9'-10"
HEIGHT.....8'- 0"

DIMENSIONS

WING AREA.....1,447 sq. ft.
SPAN.....109' - 3"
LENGTH.....86' - 6"
HEIGHT.....26' - 7"
TREAD.....29' - 2"
PROP. CLEAR.....2' - 10"
M.A.C.....14' - 0"

ELECTRONICS

MF REC.....AN/ARR-11(BC-348Q)
ADF.....AN/ARN-7
LOCALIZER REC.....RC-103-A
GLIDE PATH REC.....AN/ARN-5A
ALTIMETER.....AN/APN-1
VHF.....AN/ARC-1 or -1A
MBR.....AN/ARN-8
LORAN.....AN/APN-4
IFF.....AN/APX-2 or -2A
RANGE REC.....R-23A/ARC-5
MHF TRANS/REC.....AN/ARC-2
TRANS.....AN/ART-13
SEE NOTES

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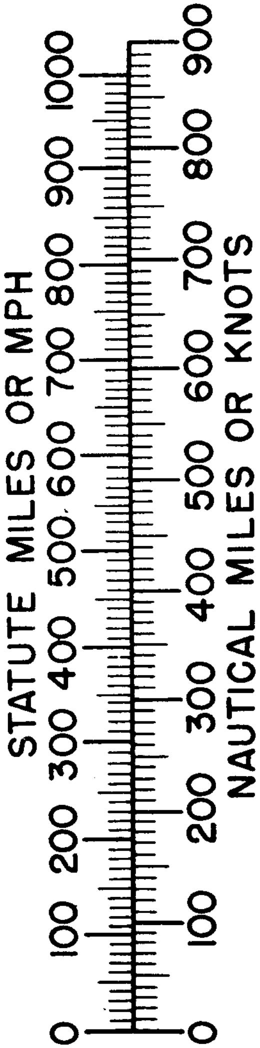

PERFORMANCE SUMMARY

LOADING CONDITION	(1) TRANSPORT	(2) TRANSPORT	(3) FERRY	
TAKE-OFF WEIGHT lbs.	70,025	71,800	56,012	
Fuel lbs.	16,020	16,020	16,020	
Bombs lbs.	14,000	15,800	---	
Wing/Power Loading (A) lbs/sq.ft; lbs/bhp.	48.4/15.2	49.6/15.6	38.7/12.2	
Stall Speed--Power off kn.	90.0	91.0	80.0	
Stall Speed--Power off - No Fuel kn.	79.1	80.2	67.6	
Stall Speed--Power on kn.	82.4	83.3	73.7	
Maximum Speed/Alt (B) kn/ft.	228/18,000	226/18,000	235/18,000	
Take-off Distance, deck -- calm ft.	2,120	2,260	1,240	
Take-off Distance, deck kn. ft.				
Take-off Distance, Airport ft.	3,040	3,210	1,970	
Rate of climb -- sea level (B) ft/min.	950	890	1,440	
Service Ceiling (B) ft.	21,800	21,200	27,200	
Time-to-climb 10,000 ft. (B) min.	11.7	12.5	7.5	
Time-to-climb 20,000 ft. (B) min.	30.0	34.0	17.7	
Combat Range/V av 10,000 ft. n.mi/kn.	1,780/150	1,695/150	2,295/131	
Combat Radius/V av ft. n.mi/kn.				
LOADING CONDITION				
GROSS WEIGHT lbs.				
Engine power				
Fuel lbs.				
Bombs/Tanks				
Max. speed at sea level kn.				
Max. speed/Alt kn/ft.				
Combat speed/Alt kn/ft.				
Rate of climb SL ft/min.				
Ceiling for 500 fpm R/C ft.				
Time-to-climb/Alt. min/ft.				

NOTES

(A) BHP at Maximum Critical Altitude
(B) Normal BHP

Performance is based on USAF Standard Aircraft Characteristics chart for Model C-119B airplane, which is based on flight tests of the XC-82 airplane. Range and radius are based on engine specification fuel consumption data increased by 5%.

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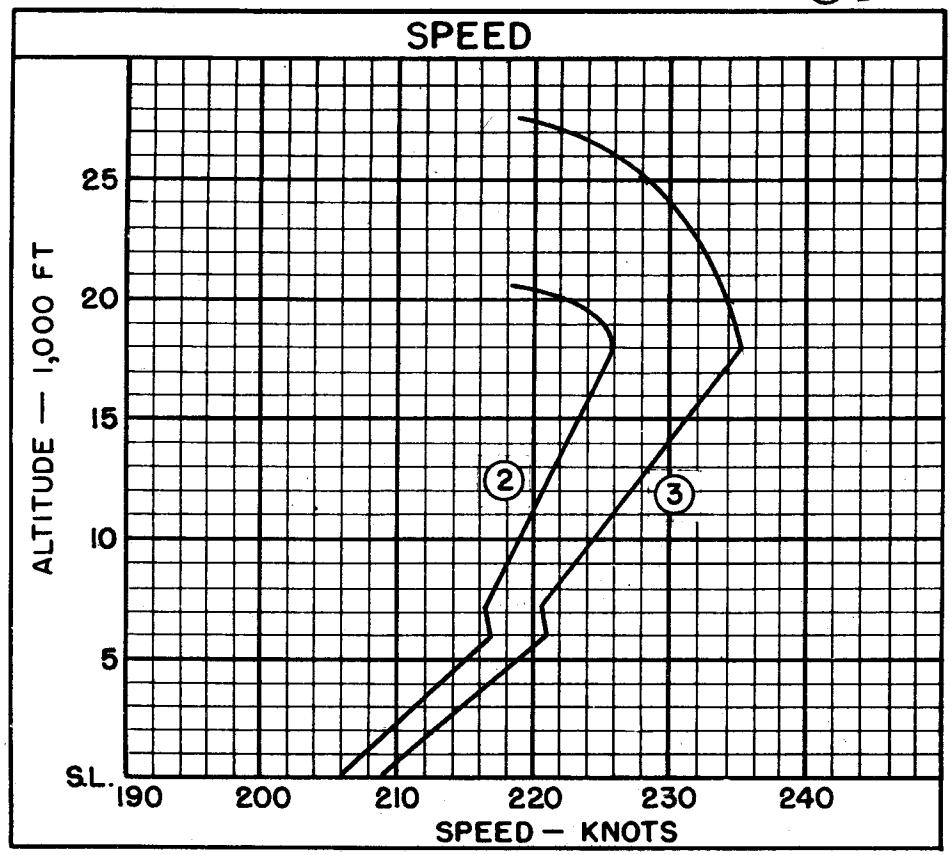
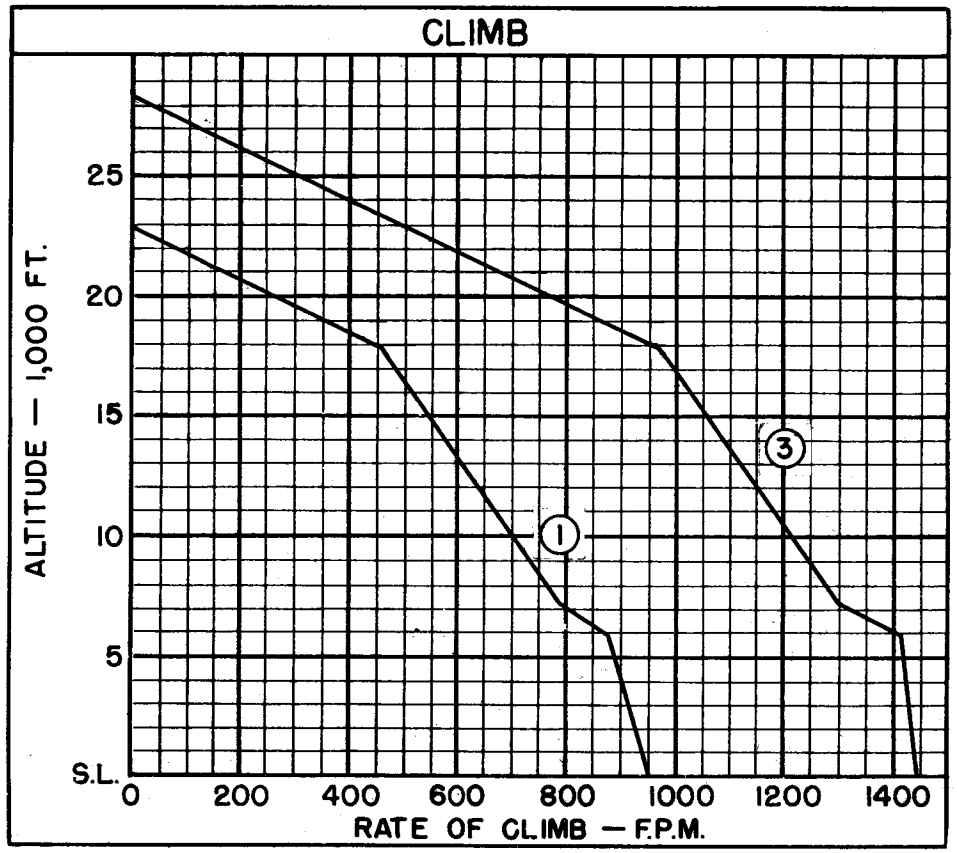
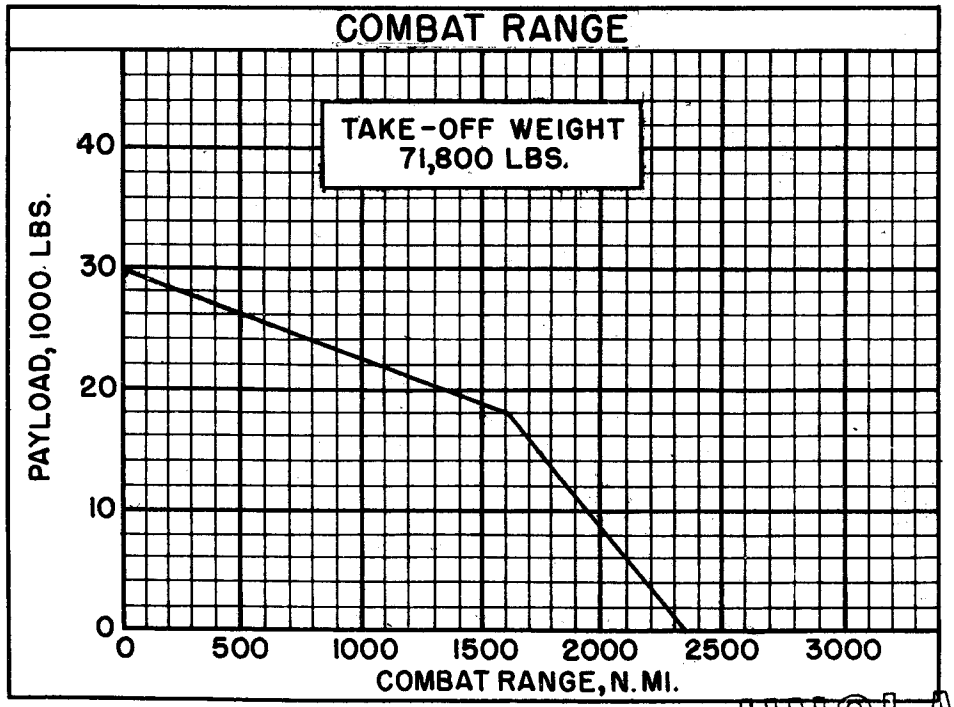
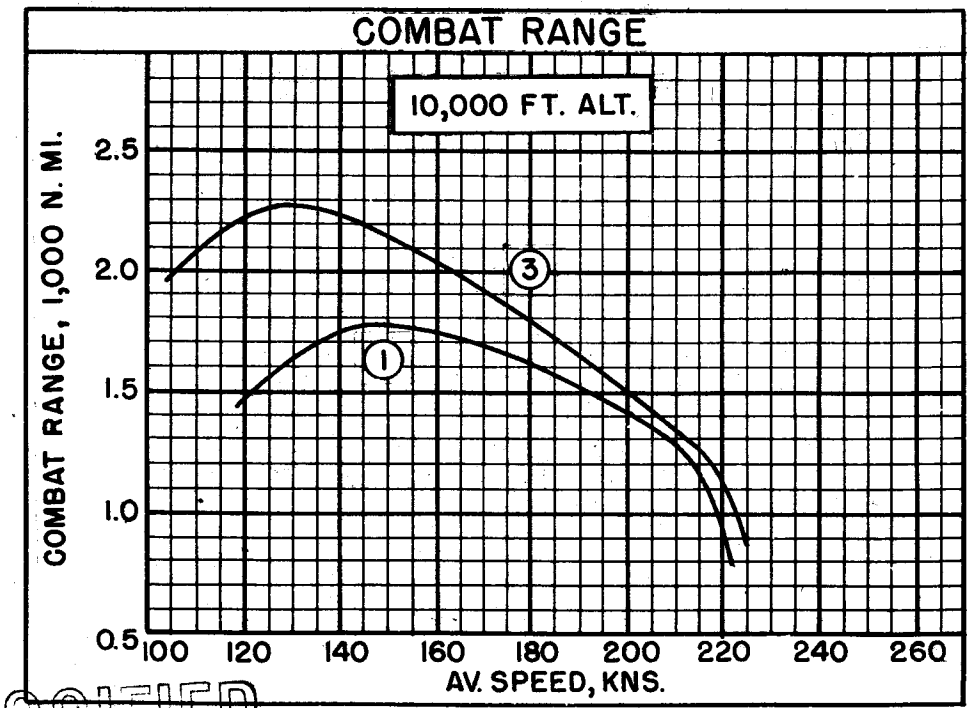
Performance with one engine inoperative, propeller feathered, flaps and landing gear retracted, at a gross weight of 70,000 pounds, is:

S. L. rate of climb.....138 ft./min. with military power


SPEED
ALTITUDE — 1,000 FT
25
20
15
10
5
S.L.
190
200
210
220
230
240
SPEED — KNOTS
2
3


CLIMB
ALTITUDE — 1,000 FT.
25
20
15
10
5
S.L.
0
200
400
600
800
1000
1200
1400
RATE OF CLIMB — F.P.M.
1
3


COMBAT RANGE
TAKE-OFF WEIGHT
71,800 LBS.
PAYLOAD, 1000 LBS.
40
30
20
10
0
0
500
1000
1500
2000
2500
3000
COMBAT RANGE, N. MI.


COMBAT RANGE
10,000 FT. ALT.
COMBAT RANGE, 1,000 N. MI.
2.5
2.0
1.5
1.0
0.5
100
120
140
160
180
200
220
240
260
AV. SPEED, KNS.
1
3

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NOTES

The following Electronics equipment will probably be fleet installed:

RADAR.....AN/APS-42
IFF.....AN/APX-6