

ISSUE OF 4 PAGES
AIRPLANE CHARACTERISTICS. & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		Transport	Transport	Transport	Transport
GROSS WEIGHT	LBS.	19605	19605	19605	18605
EMPTY WEIGHT - Actual -	LBS.	13077			
FUEL/OIL	GALS.	644/40	400/26	250/17	644/40
FIXED USEFUL LOAD	LBS.	750			
PAYLOAD	LBS.	1614	3183	4150	614
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	35.6	35.6	35.6	33.8
POWER LOADING ①	LBS./BHP.	10.9	10.9	10.9	10.3
V-MAX. SEA LEVEL	MPH.	231	231	231	232
V-MAX. AIRPLANE CRIT. ALT.	MPH.	252/13600	252/13600	252/13600	253/13600
V-STALL GROSS WEIGHT ②	MPH.	76.4	76.4	76.4	74.4
V-STALL WITHOUT FUEL ②	MPH.	68.4	71.6	73.4	66.2
TIME-TO-CLIMB -10000FT-	MIN.	8.4	8.4	8.4	7.6
TIME-TO-CLIMB -20000FT-	MIN.	20.5	20.5	20.5	18.5
SERVICE CEILING	FT.	26400	26400	26400	27300
TAKE-OFF OVER 50 FT. OBSTACLE	FT.	2130	2130	2130	1910
TAKE-OFF DISTANCE -15 KN-	FT.				
TAKE-OFF DISTANCE -25 KN-	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	1340	1340	1340	1470
MAX. RANGE/V-AV ③	STMI/MPH.	1740/129	1010/134	600/137	1880/124
MAX. RANGE/V-AV ③ 60% NSP-ST.MI/M.P.H.		1180/193	730/192	450/191	1180/194
BOMBING RADIUS/V-AV -33%R-	NMI/KN.				
PATROL RADIUS/V-AV -20%R-	NMI/KN.				
PATROL RADIUS/V-AV -33%R-	NMI/KN.				
SCOUT RADIUS	N MI.				
COMBAT RADIUS	N MI.				

ENGINE / PROP GEAR RATIO		2 W.A.C. R- 1820-40 (3:2)	
ENGINE RATING BHP/RPM/ALT.	NORMAL	TAKE OFF	
	1000/2300/S. L.-4000	1200/2500	
	900/2300/7300-12600		

TANKAGE IN GALLONS		OIL	FUEL	
AUX. FIXED	PROTECTED			PAYLOAD: -Passengers, cargo, troops, or baggage. FIXED USEFUL LOAD: - Weight of crew, trapped fuel and oil, and equipment NOTE: Weight Empty includes 750# of communicating equipment.
	UNPROTECTED	40	644	
	TOTAL - FIXED INTERNAL	40	644	
	DROPPABLE			
	DROPPABLE			
	TOTAL	40	644	
NOTE	STATUTE MILES USED-EXCEPT-RADIUS IS GIVEN IN NAUTICAL MILES & KNOTS			
	① BHP AT MAX. CRIT. ALT.			
	② STALL-WITH POWER			
③ AT 1500' ALTITUDE -NO RESERVE FUEL				

Supersedes 1 May 1943

DATE 1 June 1944

NAVAER-15198 (Rev. 8-44)

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5	6		
LOADING CONDITION		TRANSPORT	TRANSPORT		
GROSS WEIGHT	LBS.	18605	18605		
EMPTY WEIGHT	- Actual - LBS.	13077			
FUEL/OIL	GALS.	400/26	250/17		
FIXED USEFUL LOAD	LBS.	750			
PAYLOAD	LBS.	2183	3150		
ENGINE POWER USED FOR PERFORMANCE		NORMAL	NORMAL		
WING LOADING	LBS./SQ.FT.	33.8	33.8		
POWER LOADING ①	LBS./BHP	10.3	10.3		
V-MAX. SEA LEVEL	MPH.	232	232		
V-MAX. AIRPLANE CRIT. ALT.	MPH.	253/13600	253/13600		
V-STALL GROSS WEIGHT ②	MPH.	74.4	74.4		
V-STALL WITHOUT FUEL ②	MPH.	69.4	71.4		
TIME-TO-CLIMB -10000FT.-	MIN.	7.6	7.6		
TIME-TO-CLIMB -20000FT.-	MIN.	18.5	18.5		
SERVICE CEILING	FT.	27300	27300		
TAKE-OFF OVER 50 FT. OBSTACLE	FT.	1910	1910		
TAKE-OFF DISTANCE -15 KN.-	FT.				
TAKE-OFF DISTANCE -25KN.-	FT.				
TAKE-OFF TIME	SECONDS.				
RATE OF CLIMB -SL-	FT./MIN.	1470	1470		
MAX.RANGE/V-AV. ③	ST.MI./MPH.	1100/128	660/131		
MAX.RANGE/V-AV ③ 60%NSP	ST.MI./M.P.H.	730/194	460/193		
BOMBING RADIUS/V-AV -33%R-	NMI/KN.				
PATROL RADIUS/V-AV -20%R-	NMI/KN.				
PATROL RADIUS/V-AV -33%R-	NMI/KN.				
SCOUT RADIUS	NMI.				
COMBAT RADIUS	NMI.				

PERFORMANCE IS BASED ON - FLIGHT TEST

RANGE & RADIUS ARE BASED ON ENGINE REQUIREMENT

FUEL CONSUMPTION DATA INCREASED

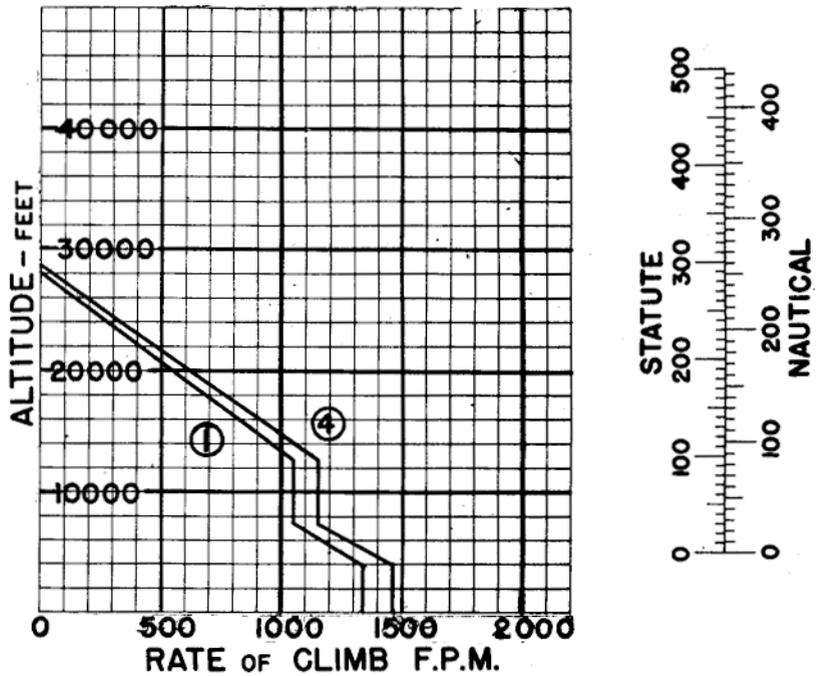
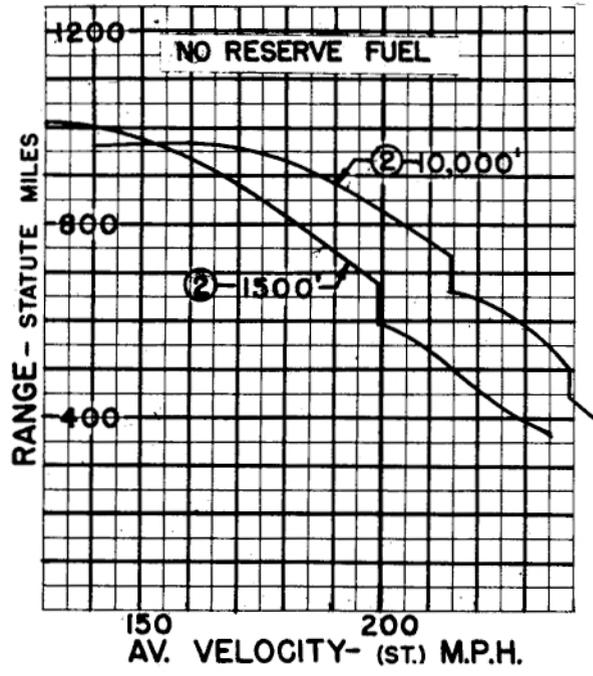
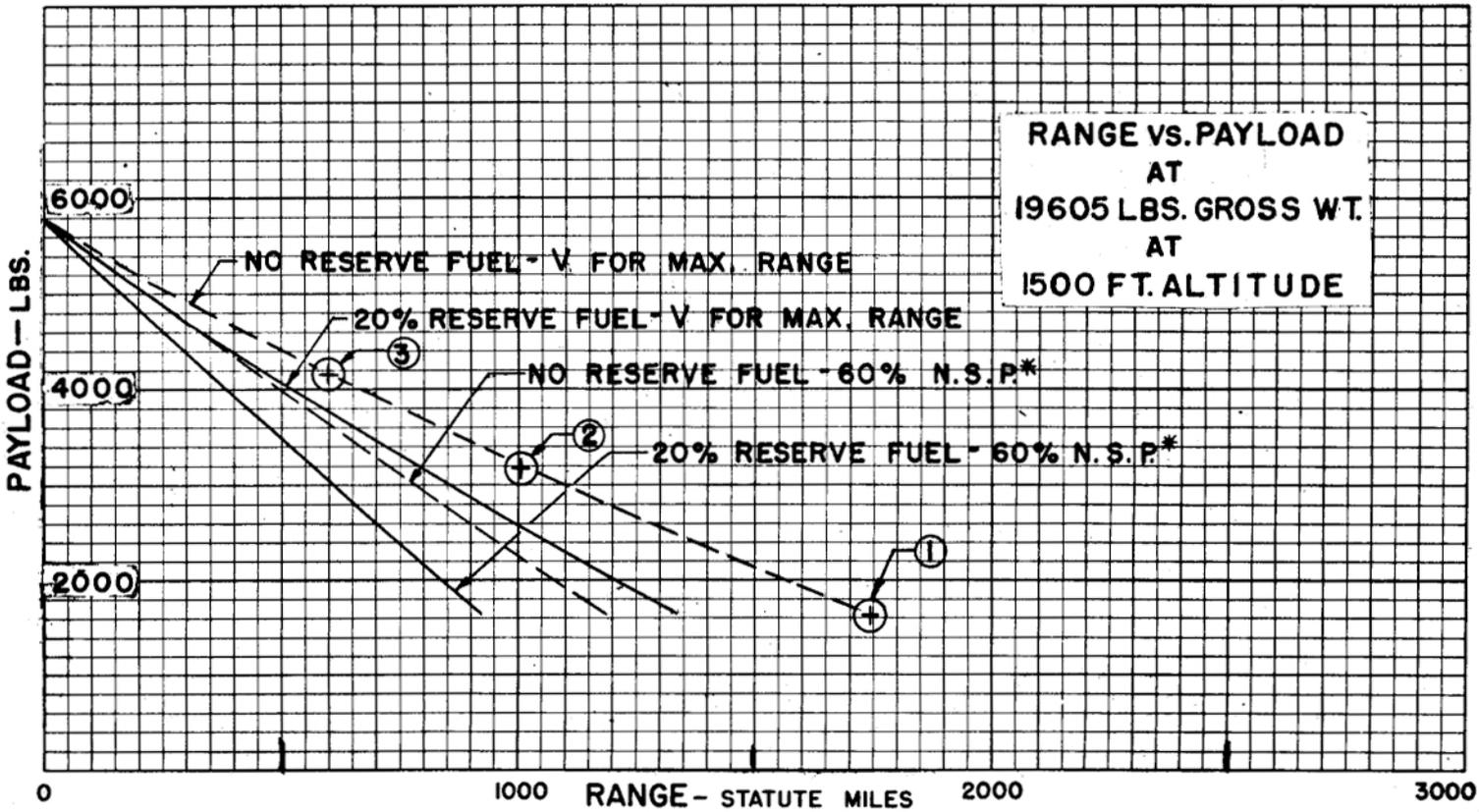
BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

The following changes are incorporated: Contract-Thru "F", Service - thru #7

Performance with one engine inoperative (flaps and landing gear up and propeller feathered) is as follows:

Gross Weight -	18605	19605
Rate of Climb-S.L.- (T.O. Bhp) 440 ft/min		350
Service Ceiling-normal power-	9700 ft.	8200

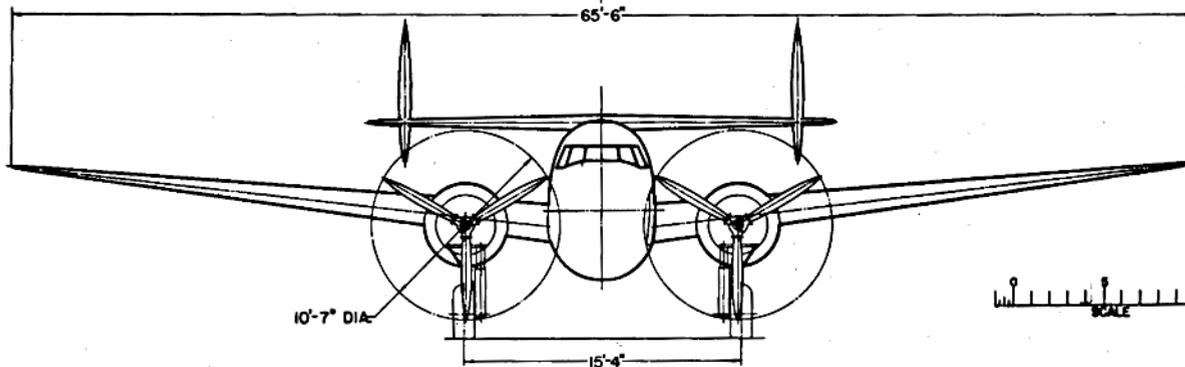
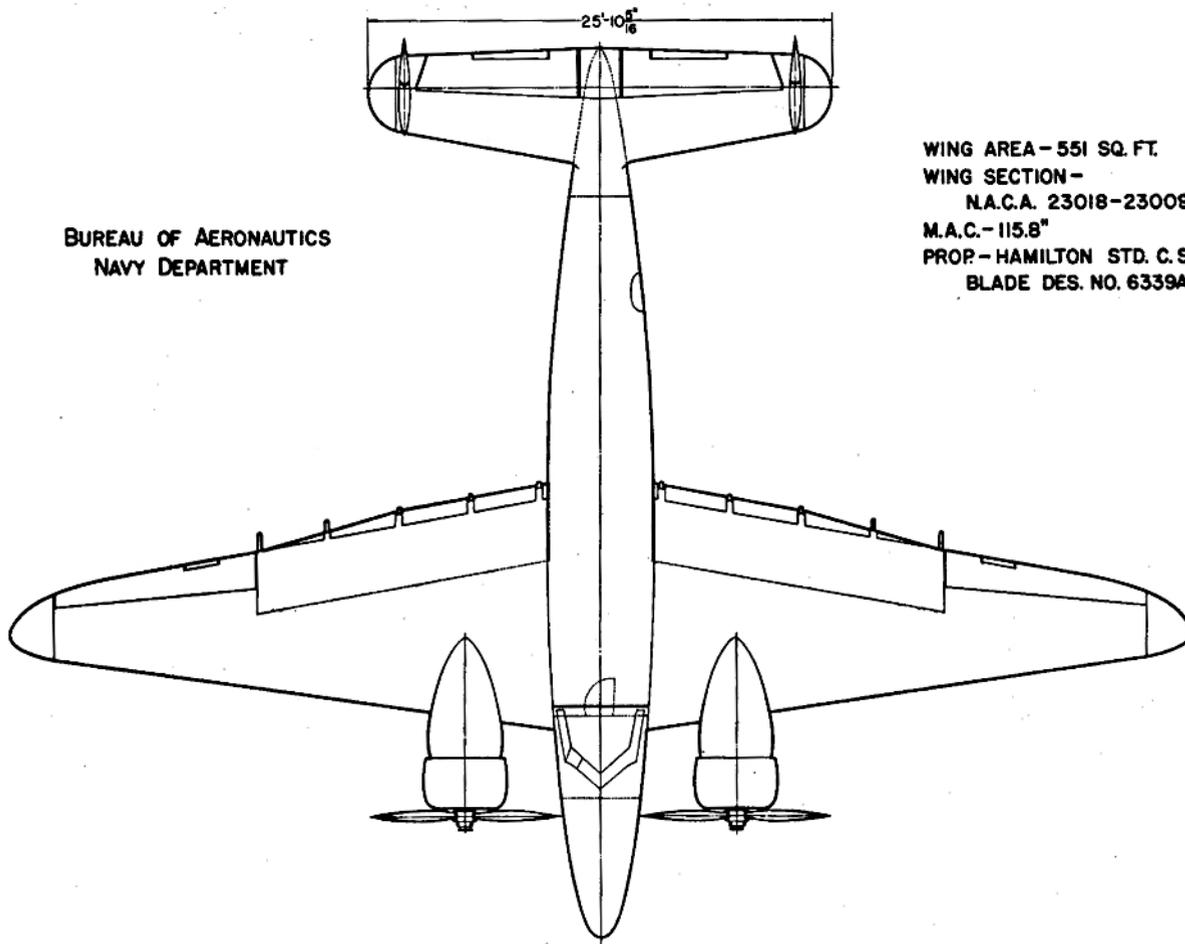
NOTE: Performance includes effect of de-icer boots



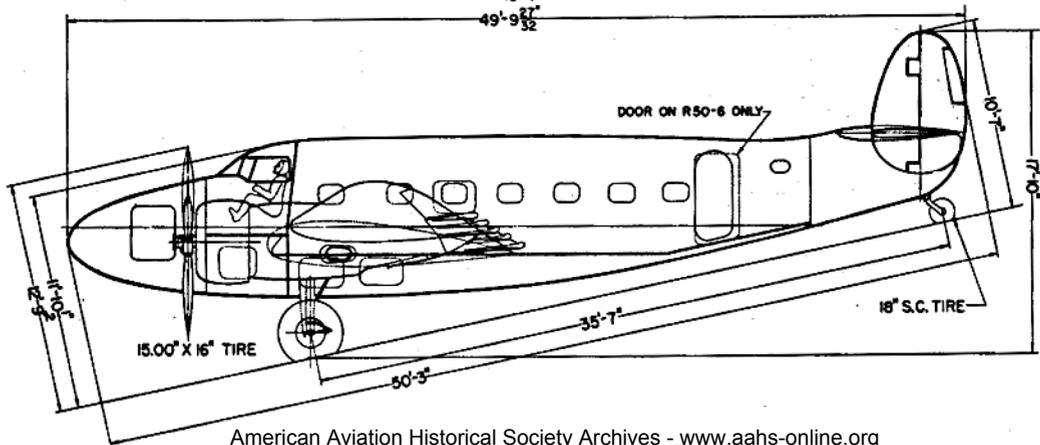
○ LOADING CONDITION COLUMN NUMBER
 * NORMAL SEA LEVEL POWER

BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 551 SQ. FT.
WING SECTION -
N.A.C.A. 23018-23009
M.A.C. - 115.8"
PROP - HAMILTON STD. C.S.
BLADE DES. NO. 6339A-12



10'-7" DIA.



MAY 1943

BU. OF AERO., NAVY DEPT.
PERFORMANCE DATA

MODEL R50-5 LAND

(A) (F)	TRANSPORT	TRANSPORT	TRANSPORT	TRANSPORT	TRANSPORT	
GROSS WEIGHT LBS	17605	17605	17605	18605	18605	
WEIGHT EMPTY "			12902			
FUEL /OIL GALS.	250/16	400/26	500/32	500/32	644/40	
(1) RUN/RESERVE	2250	1275	630	1630	705	
(2) " " "	2453	3428	4073	4073	4998	
WING LOADING	31.9	31.9	31.9	33.8	33.8	
POWER LOADING	9.8	9.8	9.8	10.3	10.3	
ENGINE	2 R-1820-40 (3:2)					
ENGINE RATING (BHP/RPM/ALT)	NORMAL			MILITARY		
	1000/2300/SL-4500			None		
	900/2300/7300-14000					
	1200/2500/Take-off					
ENG. RATE FOR PER	NORM.	NORM.	NORM.	NORM.	NORM.	
V _M -SEA LEVEL MPH	232	232	232	231	231	
- 4500(NORM) "	243	243	243	242	242	
- 7300 "	239					
- 13700 "	255	255	255	254	254	
- 15000 "	253					
- 20000 "	242					
- " "						
- " "						
- " "						
CLIMB-S.L. FT/MIN	1560	1560	1560	1410	1410	
- 13700 "	1230	1230	1230	1110	1110	
TIME-10000' MIN	7.0	7.0	7.0	7.8	7.8	
- 20000' "	16.6	16.6	16.6	18.5	18.5	
SERVICE CEIL. FT	28300	28300	28300	27300	27300	
V _S -GR. WEIGHT MPH	67.2	67.2	67.2	69.0	69.0	
- LESS FUEL "	64.2	62.4	61.2	63.2	61.4	
END/60% V _M	5.5/146	8.9/146	11.2/146	10.9/145	14.2/145	
/75 " "	3.7/182	5.9/182	7.4/182	7.3/181	9.5/181	
/90 " "	1.6/219	2.6/219	3.3/219	3.2/218	4.2/218	
/V _M " "	1.1/243	1.7/243	2.1/243	2.1/242	2.7/242	
MAX END/V _{AV} * MPH	6.3/---	10.4/---	13.2/---	12.4/---	16.4/---	
" RANGE/V _{AV} * MI/MPH	810/140	1310/139	1660/138	1600/141	2100/140	
TAKE-OFF-CALM FT.	823	823	823	942	942	
(LAND)-15 KN. "	539	539	539	623	623	
-25 KN. "	382	382	382	448	447	
TAKE-OFF (SEA) SEC.	---	---	---	---	---	

*AT 4500 FT.

REMARKS IFF equipment in all loadings.

Useful Load = (1) + (2)

(1) Passengers, etc.

(2) Crew (4 men), fuel, oil, trapped fuel and oil, misc. equipment.

Stalling speeds are based on R50-3 tests. Take-off distances are based on estimates.

BU. OF AERO., NAVY DEPT.
GENERAL DATA

MAY 1943

MODEL R50-5 LAND.

GENERAL

GROSS WEIGHT _____ LBS. C.G. _____ % M.A.C. C.G. FROM T. L. _____ INS.
MAX. CENTER OF GRAVITY RANGE _____ TO _____ % M.A.C.

SPAN _____ 65'-6" HEIGHT, LEVEL _____ 17'-10"
" , FOLDED _____ --- " , ON WHEELS _____ 11'-11"
LENGTH, LEVEL _____ 49'-10" " , " " , FOLDED _____ ---
" , ON WHEELS _____ 50'-5" " , HOIST. ATTITUDE _____ ---

WING AREA _____ 551 _____ SQ. FT. M.A.C. _____ 115.8 _____ INS.
WING SECTION NACA 23018 to 23009

DISP, MAIN FLOAT _____ --- _____ LBS. DISP, AUX. FLOAT _____ --- _____ LBS.
BEAM, MN. FL., HULL _____ ---

PROPELLER

TYPE _____ Ham. Std. C. 8. NO. OF BLADES _____ 3
DIAMETER _____ 10'-7" BLADE DEG. NO. _____ 6339

FUEL TANKAGE

FIXED TANKS (PROTECTED) _____ None _____ GALS. TOTAL, FIXED TANKS _____ 644 _____ GALS.
" " (UNPROTECT) _____ 644 _____ GALS. " , " (PROT. REMOVED) _____ --- _____ GALS.
AUX. TANKS, DROPPABLE _____ None

OIL TANKAGE

TOTAL (PROTECT., UNPROTECT.) _____ 40 _____ GALS. TOTAL (PROT. REMOVED) _____ --- _____ GALS.

PROV. FOR BOMBS, ETC.

None

REMARKS