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NAVAER 1519A (REV 2-47)

ISSUE OF 6 PAGES

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		1	2	3	4
LOADING CONDITION		COMBAT	COMBAT	COMBAT 1-TANK EXT.	COUNTER-MEASURES 3-TANKS-EXT.
GROSS WEIGHT	LBS.	18812	18812	19854	22000
EMPTY WEIGHT - SPECIFICATION	LBS.	14749			
FUEL / OIL	GALS.	360/28	360/28	510/28	810/36
FIXED GUNS/AMMUNITION		4-20mm/800 Rds. - MK I Sight System and ASG-10A			
FLEXIBLE GUNS/AMMUNITION		NONE			
ENGINE POWER USED FOR PERFORMANCE		COMBAT	NORMAL	NORMAL	NORMAL
WING LOADING	LBS./SQ.FT.	37.9	37.9	40.0	44.4
POWER LOADING ①	LBS./BHP.	6.5	8.6	9.0	10.0
V-MAX. SEA LEVEL	KN.	299	263	257	244
V-MAX./CRITICAL ALTITUDE	KN./FT.	315/11400	303/18000	295/17900	278/17700
V-STALL GROSS WEIGHT ②	KN.	82.8	82.8	85.1	89.6
V-STALL WITHOUT FUEL ②	KN.	77.9	77.9	78.3	79.1
TIME-TO-CLIMB -10000FT-	MIN.	4.0	5.4	6.0	7.3
TIME-TO-CLIMB -20000FT-	MIN.	9.8	11.3	12.7	17.4
SERVICE CEILING	FT.	30,600	29,100	27,700	24,900
TAKE-OFF DISTANCE -CALM-	FT.			644	830
TAKE-OFF DISTANCE -15 KN-	FT.			417	551
TAKE-OFF DISTANCE -25 KN-	FT.			291	394
TAKE-OFF DISTANCE -50 FT. OBST.	FT.				
TAKE-OFF TIME	SECONDS				
RATE OF CLIMB -SL-	FT./MIN.	2840	1860	1700	1400
MAX. RANGE / V-AV. ③	N MI/KN.			1160/162	1680/156
RANGE / V-AV. -60% NSP-③-	N MI/KN.				
SEARCH RADIUS / V-AV. -20% R-	N MI/KN.				
A.S.W. RADIUS / V-AV. -20% R-	N MI/KN.				
SCOUT RADIUS	S-1 N MI.			320	
COMBAT RADIUS	B-1 N MI.				450
ENGINE / PROP GEAR RATIO P & W R-4360-4 / .425					
ENGINE RATING BHP/RPM/ALT.	COMBAT	MILITARY	NORMAL	T.O.	
	3310/2700/S.L.	2950/2700/S.L.	2425/2550/S.L.	2975/2700/S.L.	
	2900/2700/9000	3000/2700/3000	2500/2550/5000		
		2400/2700/15200	2200/2550/15750		
T.O. Rating is from AEL Calibration with "Rich" Mixture Control. Combat Rating is estimated. Military and Normal Ratings are from AEL Calibration with "Normal" Mixture Control.					
TANKAGE IN GALLONS		OIL	FUEL	OFFENSIVE ARMAMENT	
FIXED	PROTECTED		360	FUSELAGE - Ext. on Douglas Bomb Ejector (alternate with drop tank)	
	UNPROTECTED	36		Bombs - 1-2000#, 1-1600#, 1-1000# or 1-500#	
	TOTAL - FIXED INTERNAL	36	360	Depth Bombs - 1-650#, or 1-325#	
				Mines - 1-2000# or 1-1000#	
AUX.	DROPPABLE 2 @ 150 on wings		300	Torpedo - 1 MK 13-3	
	DROPPABLE 1 @ 150 on fuselage		150	WINGS - Ext. (Alternate with radar and drop tanks)	
TOTAL		36	810	Bombs - 2-1000#, 2-500#, 2-250#, or 6-100#	
NOTE	① BHP AT MAX. CRIT. ALT.			Depth Bombs - 2-650# or 2-325#	
	② STALL - WITHOUT POWER			Mines - 2-1000#	
	③ AT 1500' ALTITUDE			Rocket Launcher - MK-9	
				Rockets 8-5" HVAR or 8-5" AR	

Supersedes I March 1947

DATE 1 SEPTEMBER 1947

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MODEL AM-10

A-3449

DECLASSIFIED IN ACCORDANCE WITH E. O. 11652

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

COLUMN NUMBER		5		
LOADING CONDITION		BOMBER 1-1000# 1-TANK EXT. AN/APS-4 RADAR		
GROSS WEIGHT	LBS.	21034		
EMPTY WEIGHT - SPECIFICATION	LBS.	14749		
FUEL/OIL	GALS.	510/28		
FIXED GUNS/AMMUNITION		4-20mm/300 Rds. - MK I Sight System and ASG-10A		
FLEXIBLE GUNS/AMMUNITION		NONE		
ENGINE POWER USED FOR PERFORMANCE		NORMAL		
WINGLOADING	LBS./SQ.FT.	42.4		
POWER LOADING ①	LBS./BHP	9.6		
V-MAX. SEA LEVEL	KN.	240		
V-MAX./ CRITICAL ALT.	KN./FT.	272/17600		
V-STALL. GROSS WEIGHT ②	KN.	87.6		
V-STALL. WITHOUT FUEL ②	KN.	81.0		
TIME-TO-CLIMB -10000FT.-	MIN.	6.7		
TIME-TO-CLIMB -20000FT.-	MIN.	16.0		
SERVICE CEILING	FT.	25900		
TAKE-OFF DISTANCE -CALM-	FT.	754		
TAKE-OFF DISTANCE -15 KN.-	FT.	496		
TAKE-OFF DISTANCE -25KN.-	FT.	352		
TAKE-OFF DISTANCE -50 FT OBST.	FT.			
TAKE-OFF TIME	SECONDS			
RATE OF CLIMB -SL-	FT./MIN.	1520		
MAX. RANGE / V-AV. ③	NMI./KN.	1015/152		
RANGE / V-AV. -60% NSP-③-	NMI./KN.			
SEARCH RADIUS / V-AV. -20% R-	NMI./KN.			
A.S.W. RADIUS / V-AV. -20% R-	NMI./KN.			
SCOUT RADIUS	NMI.			
COMBAT RADIUS	B-1 NMI.	270		

PERFORMANCE IS BASED ON - Flight Tests of XRTM-1 Airplane
RANGE & RADIUS ARE BASED ON AET.

FUEL CONSUMPTION DATA INCREASED

BY 15 PERCENT TO CONFORM WITH PAST EXPERIENCE.

The AM-1Q is designed to operate in the same group with standard AM-1 airplanes, but always with one more auxiliary droppable fuel tank than the standard AM-1 airplane on the same mission in order to compensate for the 140 gallon internal fuselage tank deleted in the "Q" version.

Scout Condition: Two wing bomb racks (MK 51) with sway bracing and bomb ejector (fuselage) aboard. Sway bracing for bomb ejector aboard only in bomber conditions. AN/APS-4 radar and rocket launchers not aboard. Addition of 12 MK-9 launchers reduces Vmax S.L. to 293 kn. and Vmax/ACA to 309 kn/11300 ft. at combat power. Addition of 12-5" HVAR increases gross weight of Condition (1) to 20537# and reduces Vmax S.L. to 274 kn and Vmax/ACA to 290 kn/11000 ft.

NOTES:

1. AN/APS-4 radar is carried on starboard bomb-rack.
2. 12-100# bombs on 12-250# bombs can be carried at MK-9 rocket launcher positions by replacing launchers with MK-55 bomb-racks.
3. 25 gallons of ADI fluid are available for 15 minutes at combat power.
4. 200 ft. length is required to spot 20 planes on the 96-foot wide deck immediately aft. of the forward ramp on CV-9 class carriers.

AIRPLANE CHARACTERISTICS & PERFORMANCE

BUREAU OF AERONAUTICS, NAVY DEPT.

BOMBER COMBAT RADIUS FORMULA NO. B-1-CONDITIONS NOS. -4&5					RADIUS-CLIMB+CRUISE-OUT-CRUISE BACK		
<u>WARM-UP</u>	<u>RENDEZVOUS</u>	<u>CLIMB</u>	<u>CRUISE-OUT</u>	<u>DROP TANKS</u>	<u>COMBAT</u>	<u>CRUISE BACK</u>	<u>RESERVE</u>
20 min.	20 min. at sea level	to 15000 ft.	* at 15000 ft.	DESCEND to 1500 ft.	15 min. at 1500 ft.	at 1500 ft.	60 min. at
<u>TAKE-OFF</u> 1 min.	at 60% N.S.P.	at Norm. Pr.	Norm. Mix.	DROP BOMBS FIRE ROCKETS	5 min. Com.Pow. 10 min. Nor.Pr.	170 kts.TAS Norm. Mix.	Vel. for Max.Range Norm.Mix.

*Condition (4) - Cruise-out at 191 kn.

Condition (5) - Cruise-out at 186 kn.

Combat radius of condition 4 limited by amount of protected fuel for use in combat and return. 137.7 gals. fuel remain in unprotected tanks when entering combat and must be dropped, used for approximately 1.5 hours search at speed for maximum range, or used to increase speed in cruise-out to approximately 264 knots.

SCOUTING RADIUS FORMULA NO. S-1-CONDITIONS NOS. - 3

RADIUS IS 1/3 RANGE AT VEL.FOR MAX.RANGE AT 1500 FT. Fuel for 20 min.warm-up,1 min.T.O. used at start of flight. Allowance for 60 min.at V.for max.range for rendezvous,landing and reserve carried entire distance

Scout radius is reduced 7 n.mi. for each minute of combat power operation at 1500 ft.

No provisions are incorporated for fuel transfer from droppable to main tanks after take-off.

DATE 1 SEPTEMBER 1947

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MODEL AM-1Q

DECLASSIFIED IN ACCORDANCE WITH E. O. 11652

A-3449

1 SEPT., 1947

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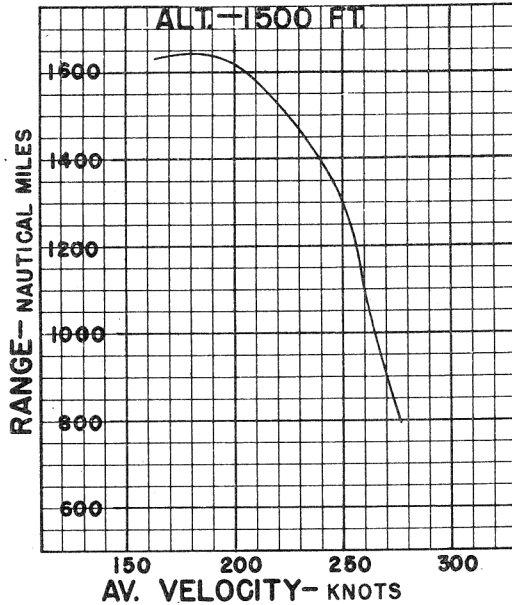
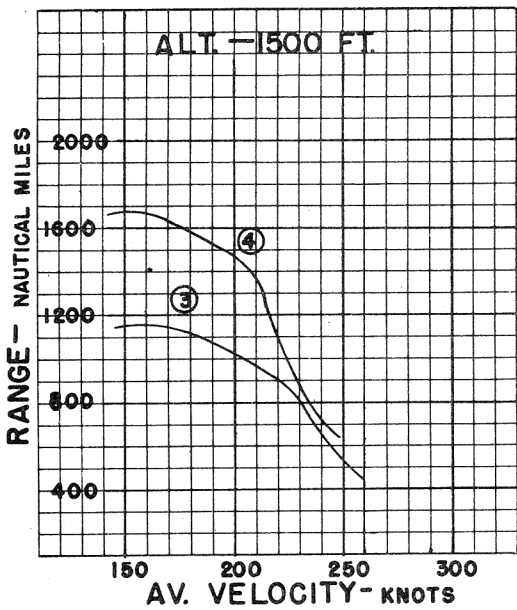
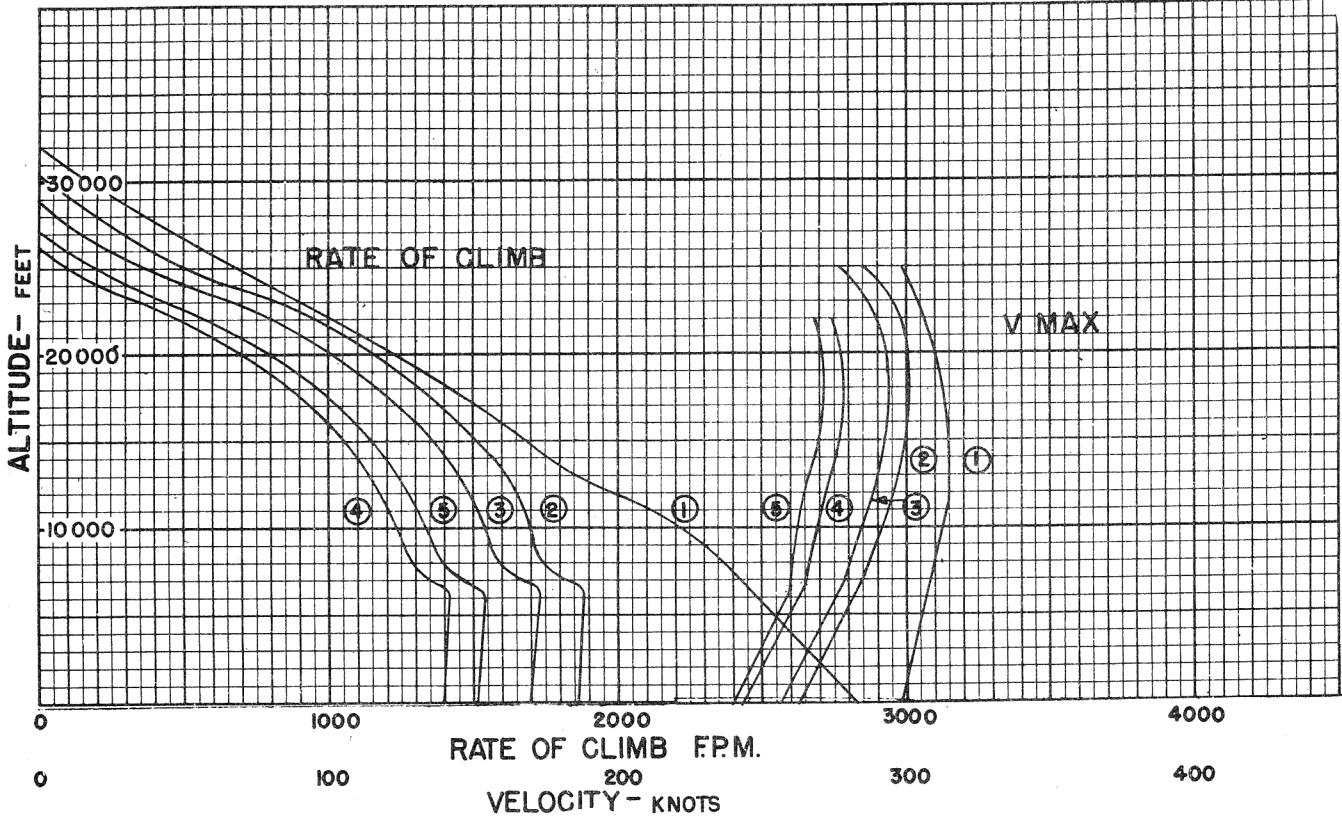
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MODEL-AM-1Q

AIRPLANE PERFORMANCE

NAVAER-1335 D (REV. 2-47)

BUREAU OF AERONAUTICS, NAVY DEPT.

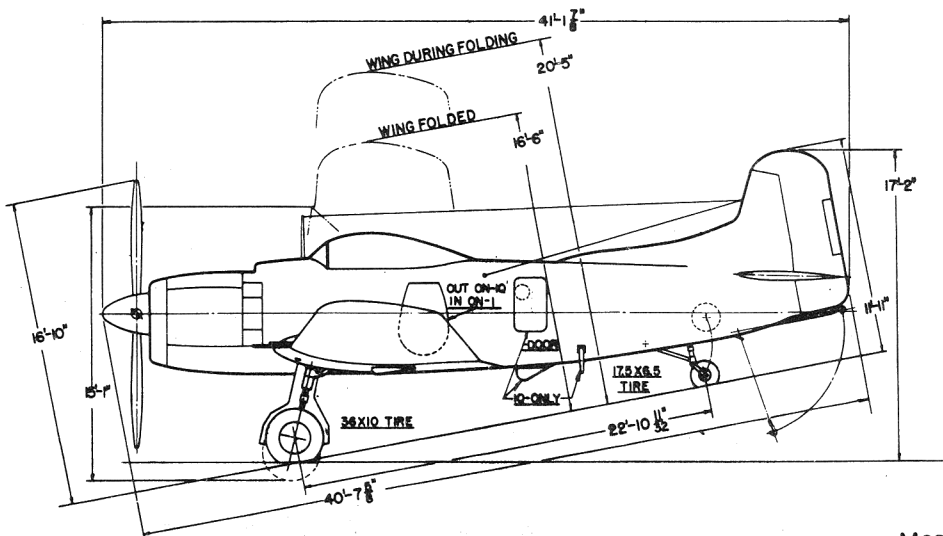
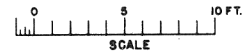
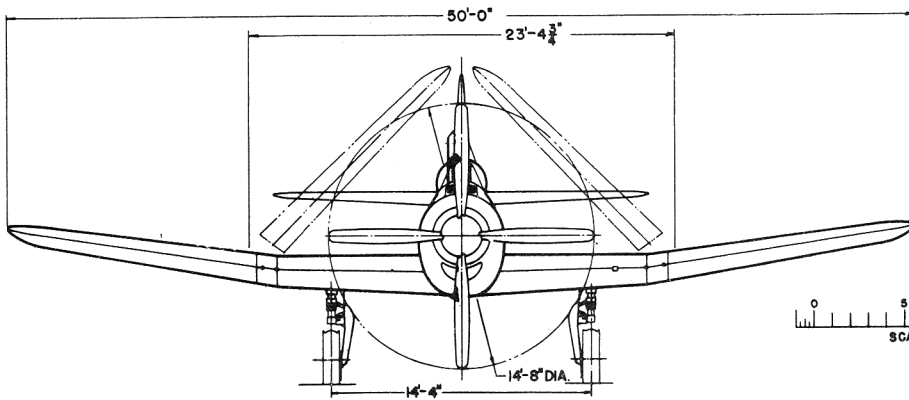
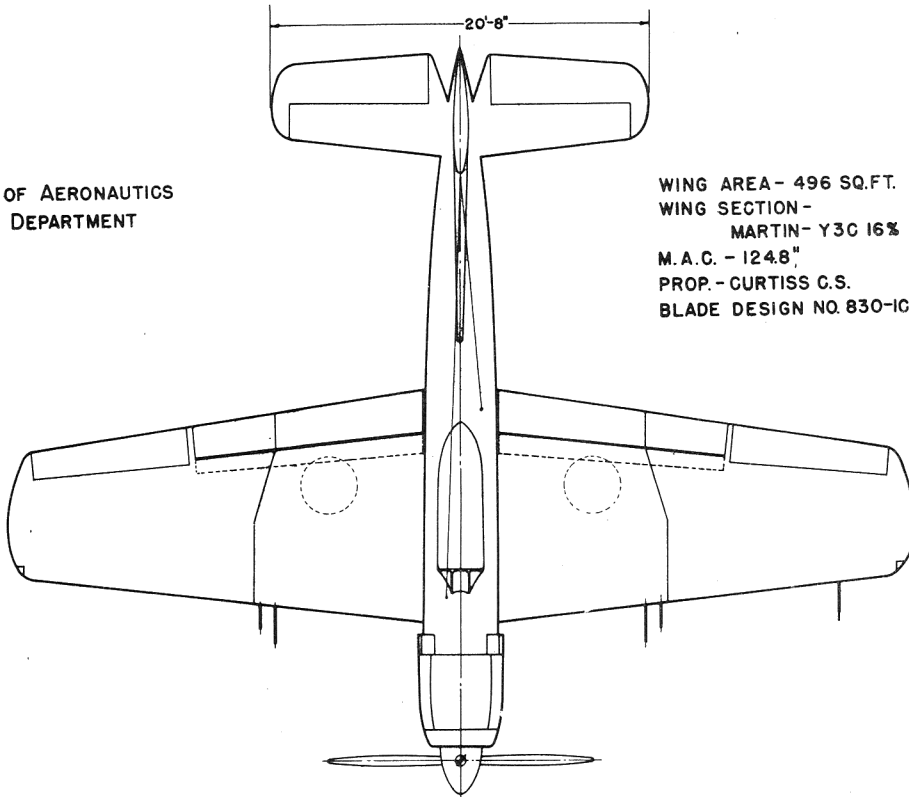


○ LOADING CONDITION COLUMN NUMBER





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BUREAU OF AERONAUTICS
NAVY DEPARTMENT

WING AREA - 496 SQ. FT.
WING SECTION -
MARTIN - Y3C 16%
M. A. C. - 124.8"
PROP. - CURTISS C. S.
BLADE DESIGN NO. 830-IC4-6



BUREAU OF AERONAUTICS
NAVY DEPARTMENT

-  BULLET RESISTANT GLASS ARMOR PLATE
-  SELF-SEALING TANKS
-  NON SELF-SEALING TANKS
-  DEFLECTION PLATE

PROTECTION

- | | |
|--|----------|
| 1. PILOT FORWARD | 117 LBS. |
| 2. PILOT AFT | 138 LBS. |
| 3.A SELF-SEALING CELLS AM-1 | 382 LBS. |
| 3.B SELF-SEALING CELLS AM-IQ | 252 LBS. |
| 4. OIL COOLER | 42 LBS. |
| 5. FLAK CURTAIN
(REAR COCKPIT AM-IQ ONLY) | 10 LBS. |

