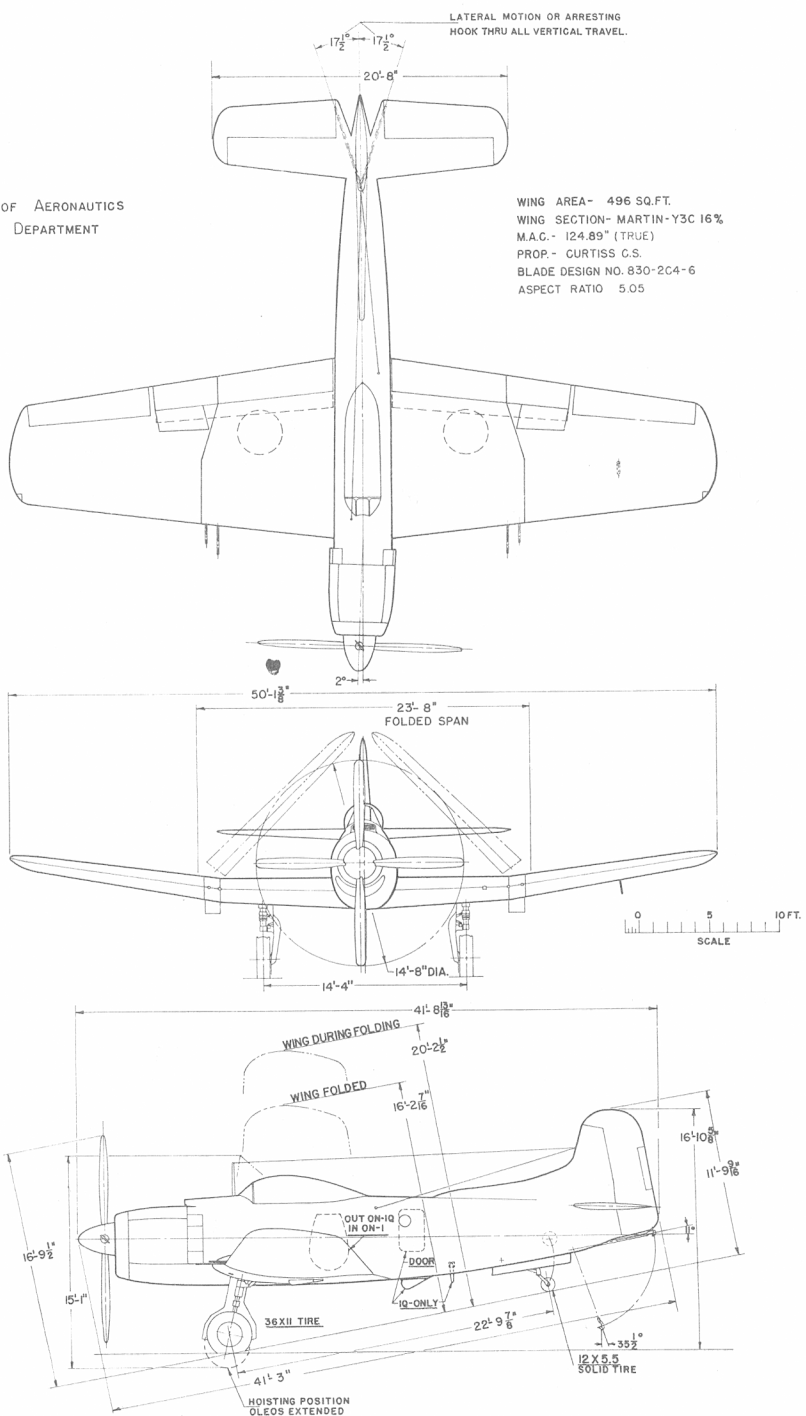


STANDARD AIRCRAFT CHARACTERISTICS  
 AM-1Q "MAULER"

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BUREAU OF AERONAUTICS  
NAVY DEPARTMENT



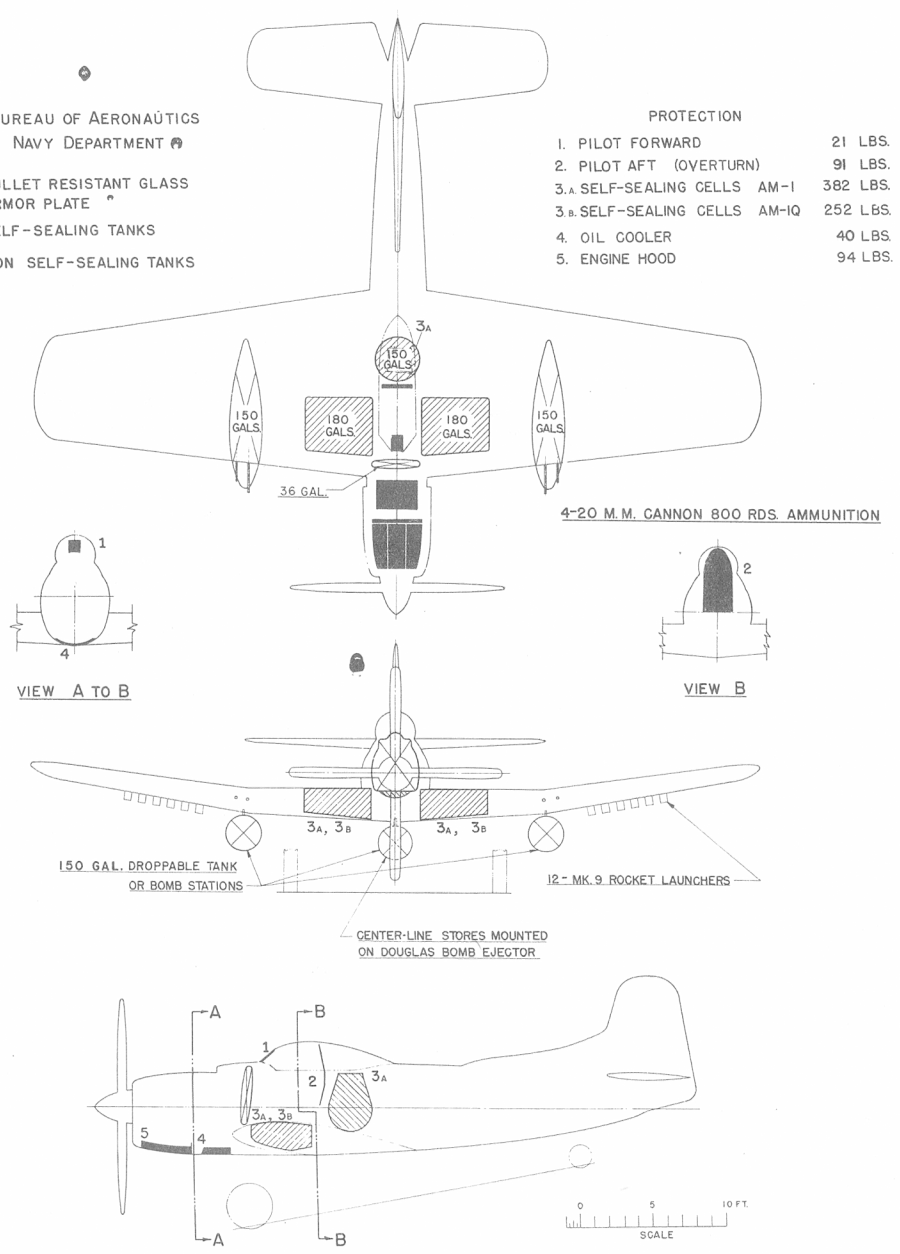
DESCRIPTIVE ARRANGEMENT

BUREAU OF AERONAUTICS  
NAVY DEPARTMENT

- BULLET RESISTANT GLASS ARMOR PLATE
- ▨ SELF-SEALING TANKS
- ⊗ NON SELF-SEALING TANKS

PROTECTION

- |                              |          |
|------------------------------|----------|
| 1. PILOT FORWARD             | 21 LBS.  |
| 2. PILOT AFT (OVERTURN)      | 91 LBS.  |
| 3.A SELF-SEALING CELLS AM-1  | 382 LBS. |
| 3.B SELF-SEALING CELLS AM-1Q | 252 LBS. |
| 4. OIL COOLER                | 40 LBS.  |
| 5. ENGINE HOOD               | 94 LBS.  |



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### MISSION AND DESCRIPTION

The AM-1Q is intended for torpedo and dive-bombing, scouting, and RCM operations. It is presently in production.

All bombs, mines, torpedoes, rockets, etc, are carried externally on three pylons on wings and fuselage. Provision for radar on right wing pylon. Crew of two, with RCM compartment aft of pilots cockpit. Structure is conventional all-metal. Hydraulically operated canopy. Folding wings. Slotted flaps. Split type dive brakes interlocked with landing flaps. Can carry incendiary and fragmentation clusters, smoke tanks.

### WEIGHTS

Loadings	Lbs.	L.F.
EMPTY.....	15380.....	
BASIC.....	16162.....	
DESIGN.....	19450.....	7.50
COMBAT.....	19734.....	7.35
MAX.T.O....	25000.....	*5.80
MAX.LAND		
Carrier..	17950.....	
Shore...	20600.....	

Weights are actual with calculated changes.  
\* See Notes

### POWER PLANT

NO. & MODEL.....(1)R-4360-4W  
MFR.....P&W  
SUPERCH.....1 stg, var.spd.  
PROP.GEAR RATIO.....0.425  
PROP.MFG.....Curtiss  
PROP.DES.NO.....830-204-6  
NO.BL./DIA.....4/14'-8"

### RATINGS

	Bhp @	Rpm @	Alt.		
T.O.	3000	2700	S.L.		
MIL.	3000	2700	1500'		
			2400	2700	13500'
NORM.	2500	2550	5000'		
			2200	2550	14500'

SPEC. N-7039-C

### FUEL AND OIL

GAL.	NO.TANKS	LOCATION
360	2	WING, SEAL
450	3	DROP

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

### OIL

CAPACITY(GALS).....36  
SPEC.....AN-O-8  
GRADE.....1100-1120

### ORDNANCE

GUNS			
No.	Size	Location	Rds.
4	20mm	Wing	800

BOMBS & ROCKETS			
Type	Size	Location	No.
Bomb	2000#	External	3
Bomb	500#	External	3
Mine	2000#	External	3
Mine	1000#	External	3
D.B.	350#	External	3
Torp.	Mk-13	External	3
A.R.	11.75"	Wing	2
HVAR	5"	Wing	12

### FIRE CONTROLS

Sighting system....Mk.1 Mod.2  
Bomb Director.....AN/ASG-10A

Max.Bomb Load.....6000 Lbs.

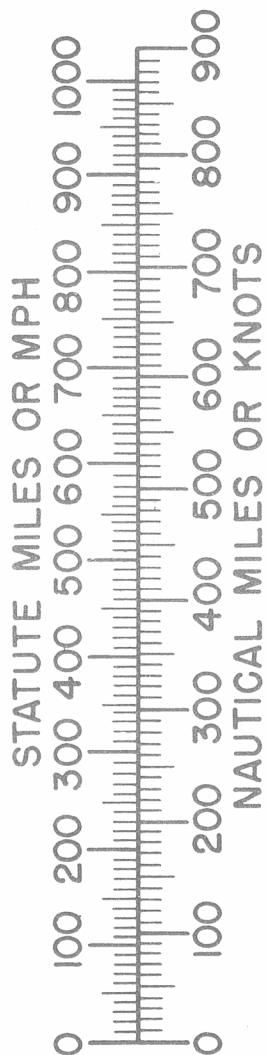
### DIMENSIONS

WING AREA.....	496 sq.ft.
SPAN.....	50'-1"
LENGTH.....	41'-3"
HEIGHT.....	11'-10"
TREAD.....	14'-4"
PROP.CLEAR.....	7"
M.A.C.....	9'-11"

### ELECTRONICS

Range Rec.....R-23A/ARC-5  
HF Comm.....AN/ARC-2  
VHF Homing.....AN/ARR-2A  
VHF Comm.....AN/ARC-1A  
Altimeter.....AN/APN-1  
Search Radar.....AN/APS-4  
IFF.....AN/APX-2  
Search Rec.....AN/APR-1  
Pulse Analy.....AN/APA-11  
Pan.Adapt.....AN/APA-38

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PERFORMANCE SUMMARY

LOADING CONDITION	(1)ATTACK 1-2000#Bomb AN/APS-4	(3)ATTACK 1-2000#Bomb 2-150GalTanks		
TAKE-OFF WEIGHT	lbs 21765	23796		
Fuel	lbs 2160	2160/1800		
Bombs	lbs 2000	2000		
	lbs			
Wing/Power Loading (A)	lbs/sq.ft. lbs/bhp 43.9/9.9	48.0/10.8		
Stall Speed--Power off	kn 84	88		
Stall Speed--Power off - No Fuel	kn 80	80		
Stall Speed--Power on	kn 81	84		
Maximum Speed/Alt (B)	kn/ft 267/16000	264/16000		
Take-off Distance, deck -- calm	ft 815	1000		
Take-off Distance, deck 25 kn.	ft 380	485		
Take-off Distance, Airport	ft			
Rate of climb -- sea level (B)	ft/min 1870	1570		
Service Ceiling (B)	ft 26800	24500		
Time-to-climb 10,000ft. (B)	min 6.0	7.0		
Time-to-climb 20,000ft. (B)	min 14.3	18.5		
Combat Range/V av 15,000	ft. n.mi/kn 525/173	1020/177		
Combat Radius/V av	ft. n.mi/kn 175/175	490/175		
LOADING CONDITION	(2)COMBAT	(4)COMBAT	(5)COMBAT	
GROSS WEIGHT	lbs 19,765	19734	19734	
Engine power	Max.	Max.	Norm.	
Fuel	lbs 2160	2160	2160	
Bombs/Tanks				
Max. speed at sea level	kn 270	279	254	
Max. speed	ft. kn 286/10500	293/10500	285/16000	
Combat speed/Alt.	kn/ft 279/15000	288/15000		
Rate of climb SL	ft/min 3160	3170	2220	
Ceiling for 500 fpm R/C	ft 25500	25650	25650	
Time-to-climb/Alt.	min/ft			

NOTES

- (A) BHF at Maximum Critical Altitude
- (B) Normal BHF

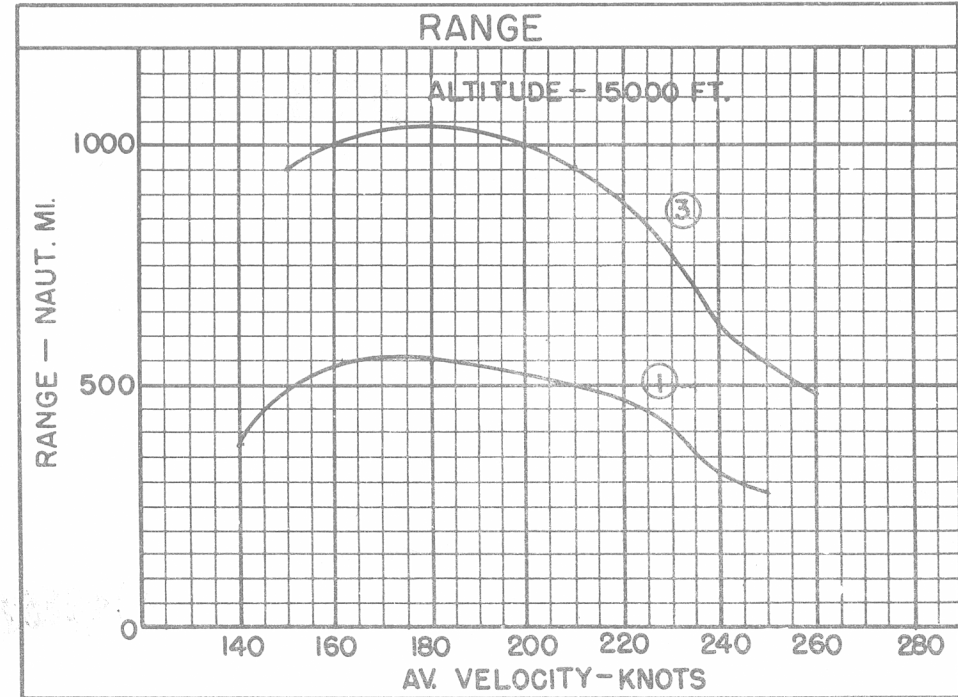
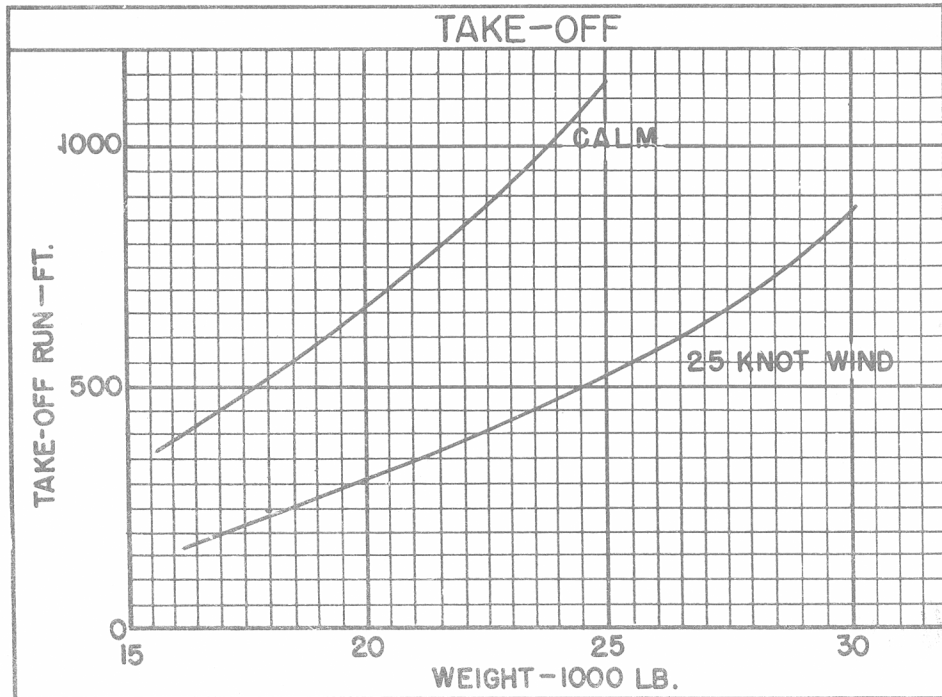
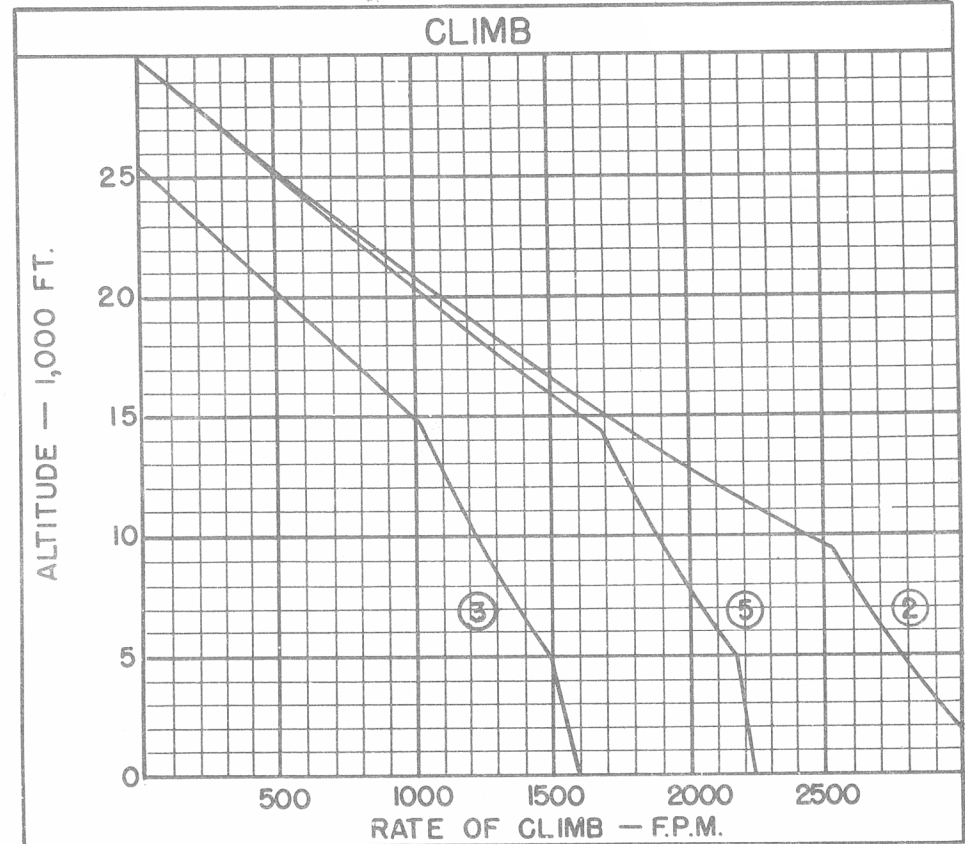
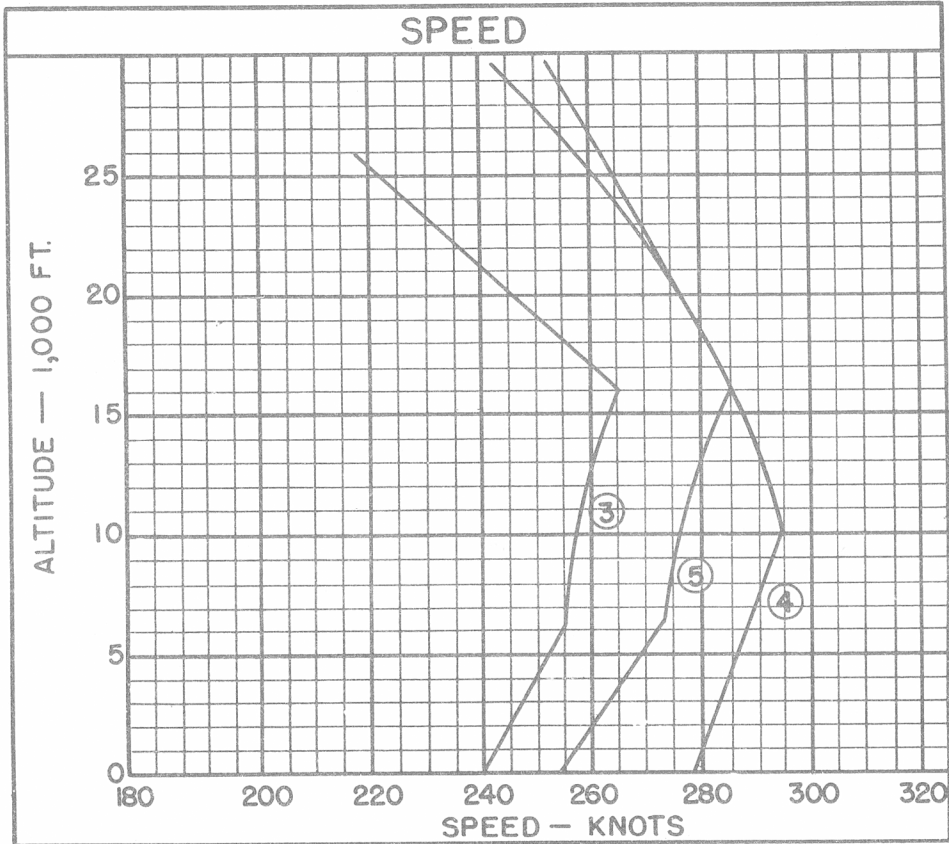
Performance is based on calculations and AM-1 flight test data.

Range and radius are based on engine specification fuel consumption data; increased by 5%.

Addition of twelve 5" HVAR to Col.(1) increases Take-off Weight to 23499 lbs. and reduces Vmax at S.L. by 6 knots, range by 64 nautical miles, and increases take-off (25 knot) by 85 ft.

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○ LOADING CONDITION COLUMN NUMBER

~~RESTRICTED~~

# NOTES

Maximum take-off weight of 25000 lbs. is based on 11X36X12 ply tires rated at 12500 lbs. Future tires 11X36X14 ply rated at 14000#, with increased braking capacity, will permit maximum take-off weights of 28000 lbs.

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### Attack Combat Radius Formula No. B-1

<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	to	at	<u>DESCEND</u>	15 min. at		60 min. at
20% N.Pr.	Sea Level	15000 ft.	15000 ft.	to 1500 ft.	1500 ft.	at 1500 ft.	V for
<u>TAKE-OFF</u>	at 60%	at Normal	180 kts.TAS	<u>DROP BOMBS</u>	5 min.combat	170 kts. TAS	Max. Range
1 min.	N. Pr.	S.L. Pr.	Auto Lean	<u>FIRE</u>	and 10 min.		
at T.O.Pr.	Auto Lean	Auto Rich		<u>ROCKETS</u>	N. Pr.	Auto Lean	Auto Lean

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