

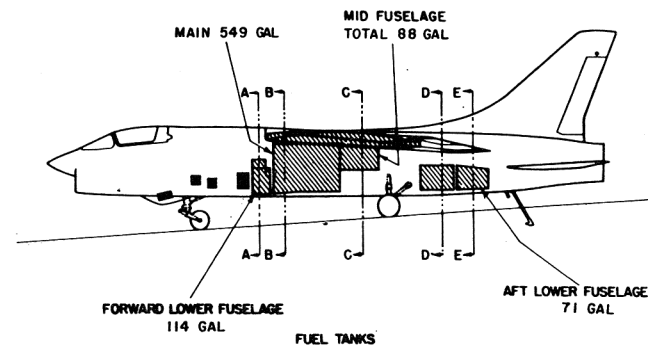
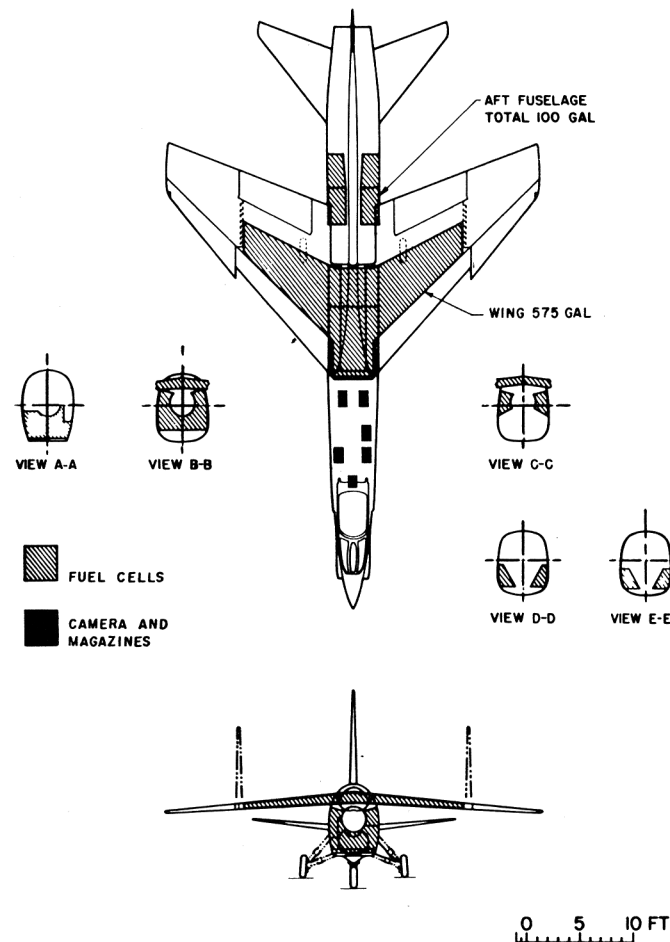
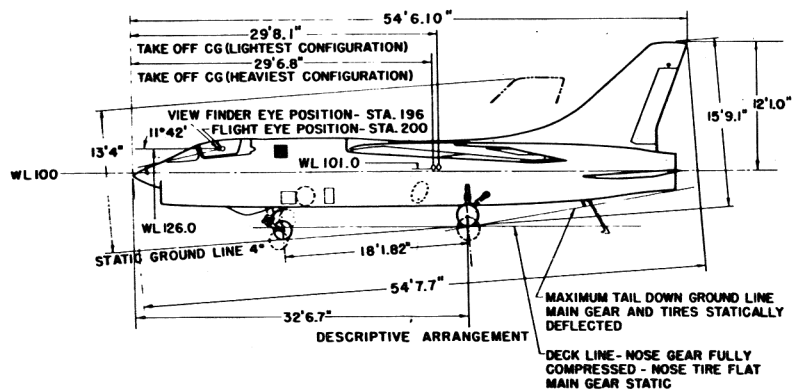
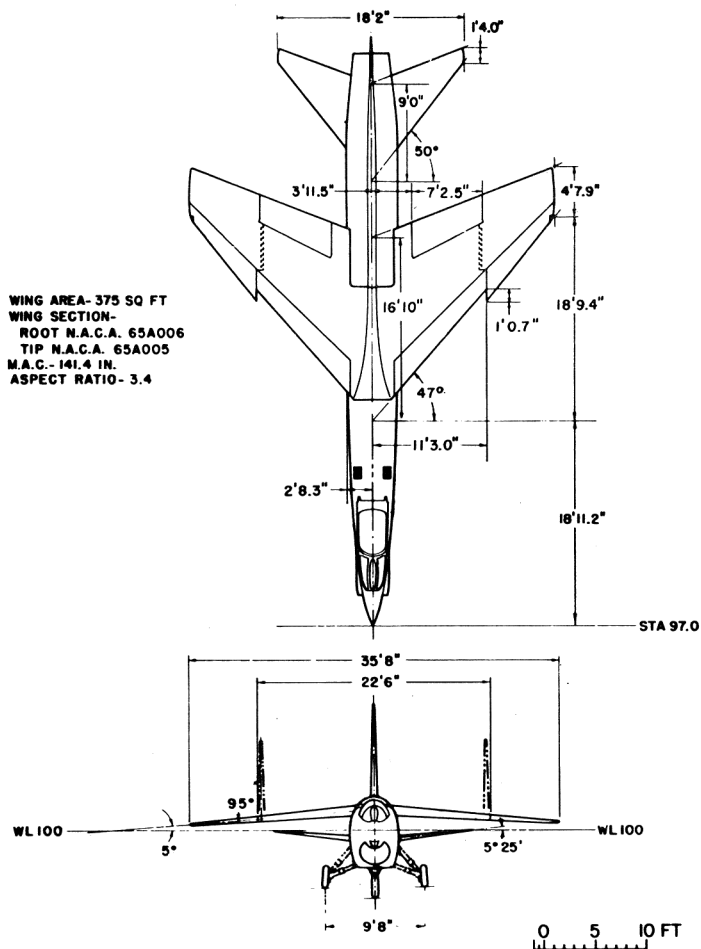
STANDARD AIRCRAFT CHARACTERISTICS

F8U-1P "CRUSADER"

CHANCE VUGHT

Standard Aircraft Characteristics NAVAER 1335A (REV. 1-55)

WING AREA- 375 SQ FT
WING SECTION-
ROOT N.A.C.A. 65A006
TIP N.A.C.A. 65A005
M.A.C.- 141.4 IN.
ASPECT RATIO- 3.4



Standard Aircraft Characteristics NAVIER 1335B (Rev. 1-55)

POWER PLANT

No. & Model J57-P-4
 MFR..... PRATT AND WHITNEY
 Type AXIAL FLOW
 Length 250"
 Diameter 41"
 Augmentation ... AFTERBURNING

RATINGS

LBS @ RPM @ ALT

	LBS	@ RPM	@ ALT
MIL+AB	16000	6100	S.S.L.
MIL	10200	6100	S.S.L.
NORM	8700	5780	S.S.L.

ENG. SPEC. NO. P&W N-1669-C

ELECTRONICS

VHF NAVIGATION
 RECEIVER..AN/ARN-14E
 INSTALLATION
AN/ARN-21)
 UHF TRANSMITTER RECEIVER
AN/ARC-27A
 UHF DIRECTION FINDER
AN/ARA-25
 IFF TRANSPONDER.... AN/APX-6B
 CODER AN/APA-89
 RADAR ALTIMETER ... AN/APN-22

MISSION AND DESCRIPTION

THE F8U-1P IS A PHOTOGRAPHIC RECONNAISSANCE AIRPLANE. IT IS DESIGNED TO FLY GENERAL DAY RECONNAISSANCE MISSIONS, SPECIAL MISSIONS FOR BEACH AND AMPHIBIOUS MAPPING AND CHARTING, AND NIGHT RECONNAISSANCE.

THE F8U-1P IS SIMILAR TO THE F8U-1 FIGHTER VERSION EXCEPT FOR (1) FRONT FUSELAGE "COKING" AND FLATS TO FACILITATE THE PHOTOGRAPHIC AND INFLIGHT REFUELING (IFR) EQUIPMENT, (2) THE STRIKE CAMERA FAIRING ON THE BOTTOM CENTERLINE OF THE FUSELAGE AND (3) REMOVAL OF THE GUN BUMPS. THE F8U-1P IS A SINGLE-PLACE SWEEP-WING AIRPLANE HAVING A HIGH VARIABLE INCIDENCE WING AND A LOW UNIT HORIZONTAL TAIL.

DEVELOPMENT

FIRST FLIGHT JANUARY 1957
 SERVICE USE NOVEMBER 1957

DIMENSIONS

WING

AREA 375 SQ. FT.
 SPAN 35'-8"
 MAC 141"
 SWEEPBACK - $\frac{1}{4}$ CHORD.. 42°
 LENGTH 54'-6"
 HEIGHT 15'-9"
 TREAD 9'-8"

WEIGHTS

LOADINGS	-LBS.	L.F.
EMPTY	16,796
BASIC	17,564
DESIGN	24,000	6.4
COMBAT	23,752
MAX. T.O.		
(FIELD)	27,822
(CAT)	27,822
MAX. LAND.		
(FIELD)	23,500
(ARREST)	20,000

FUEL AND OIL

TOTAL GAL.	NO. TANKS	LOCATION
637	3	MAIN FUSELAGE
285	5	AFT FUSELAGE
575	1	WING

FUEL GRADE J P-5
 FUEL SPEC (APPLICABLE).....
 MIL-F-5624

OIL

CAPACITY (GALS.)(USABLE).4.0
 SPEC(APPLICABLE) MIL-L-7808

CAMERAS

No.	DESCRIPTION	LOCATION
1	CAMERA, KB-10A	FUSELAGE
5	CAMERAS, CAX-12	FUSELAGE
1	SCANNER	FUSELAGE
1	SCANNER- CONVERTER	FUSELAGE

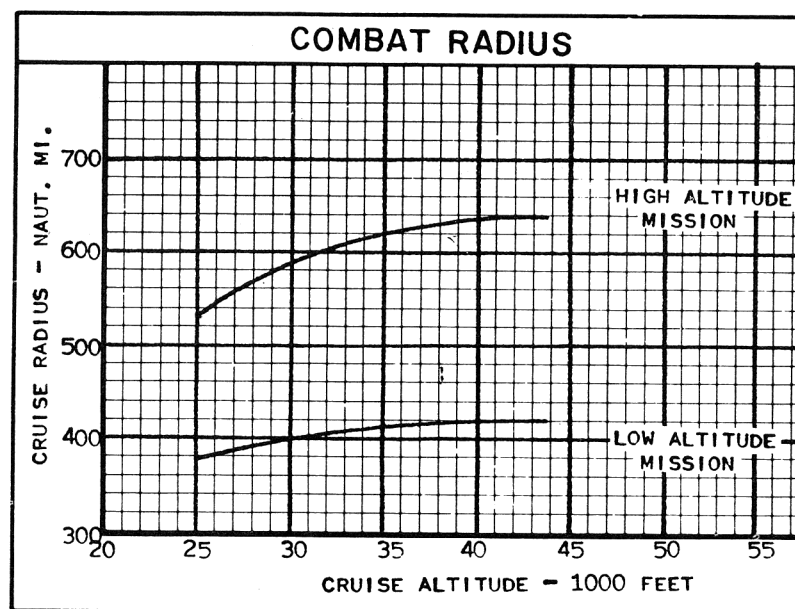
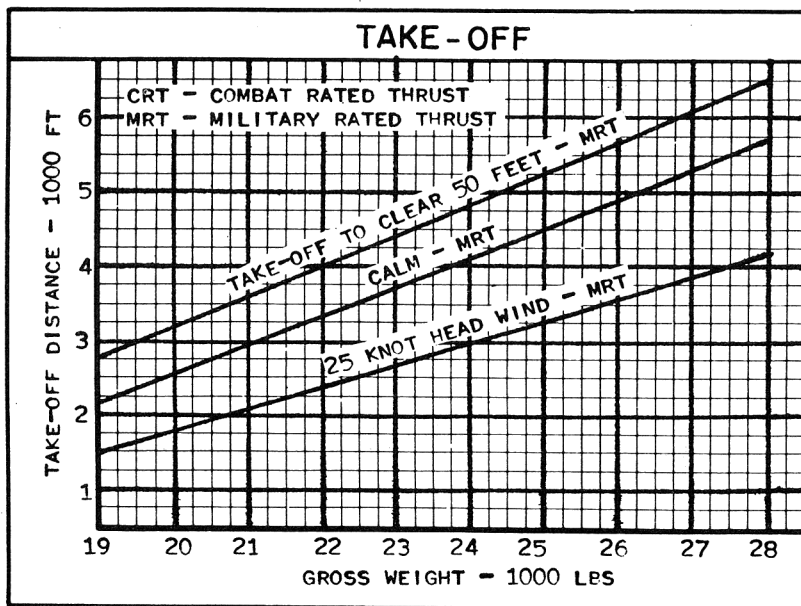
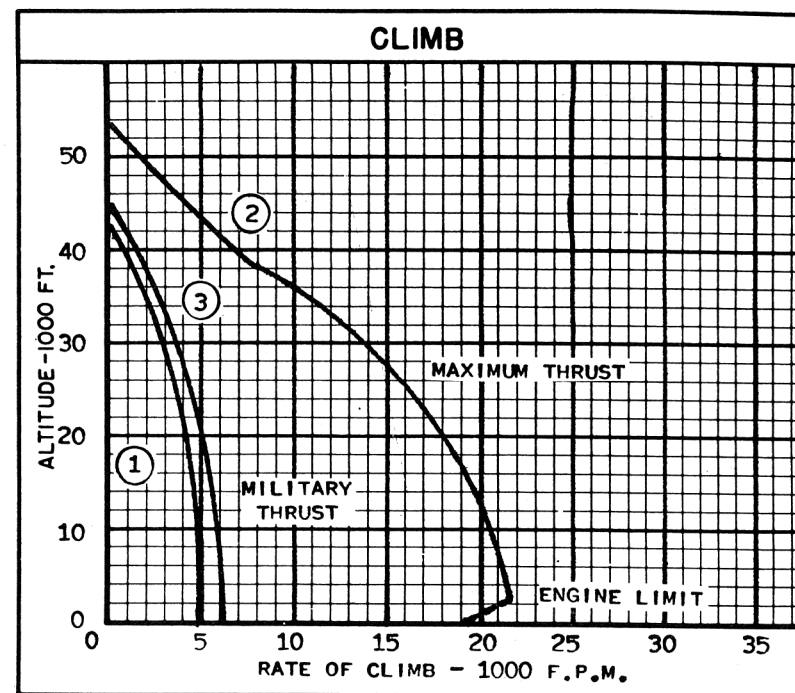
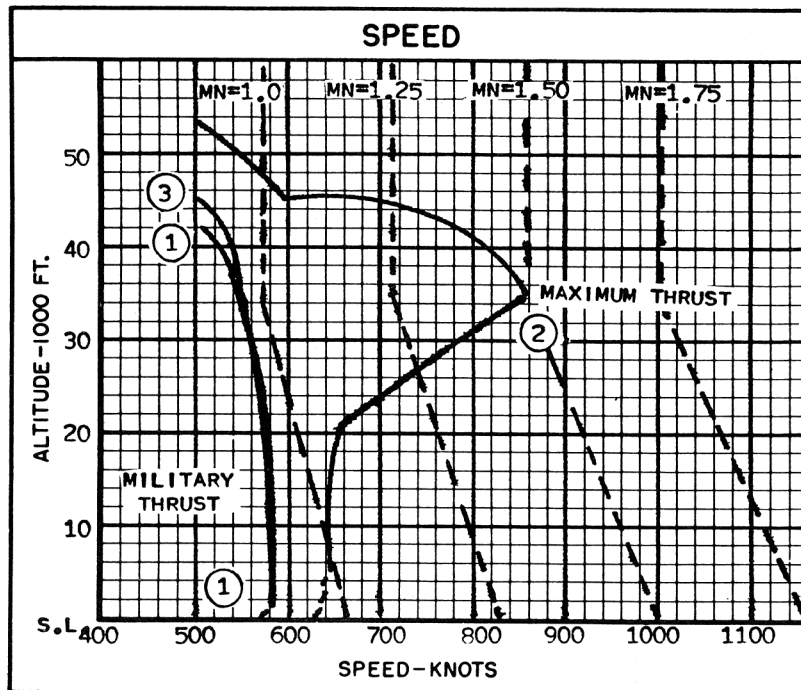
PERFORMANCE SUMMARY					
TAKE-OFF LOADING CONDITION		(1) HIGH ALT. PHOTO MISSION		(4) LOW ALT. PHOTO MISSION	
TAKE-OFF WEIGHT	lb.	27,822		27,822	
Fuel internal/external (JP-5)	lb./lb.	10,176		10,176	
Payload	lb.	520		520	
Wing loading *	lb./sq.ft.	74.2		74.2	
Stall speed - power-off	kn.	137.2		137.2	
Take-off run at S.L. - calm	ft.	5,600		5,600	
Take-off run at S.L. 25 kn. wind	(A) ft.	4,170		4,170	
Take-off to clear 50 ft. - calm	(A) ft.	6,450		6,450	
Max. speed/altitude	(A) kn./ft.	585/10,000		585/10,000	
Rate of climb at S.L.	(A) fpm.	5050		5050	
Time: S.L. to 20,000ft.	(A) min.	4.3		4.3	
Time: S.L. to 30,000ft.	(A) min.	7.2		7.2	
Service ceiling (100 fpm)	(A) ft.	41,600		41,600	
Combat range	n.mi.	1,740		1,740	
Average cruising speed	kn.	495		495	
Cruising altitude(s)	ft.	42,350		42,350	
Combat radius/Mission time	N.MI./HRS.	640/2.84		422/1.86	
Average cruising speed	kn.	495		495	
IFR RADIUS/MISSION TIME	N.MI./HRS.	1190/5.08(B)		937/4.01	
COMBAT LOADING CONDITION		(2) 60% FUEL	(3) 60% FUEL		
COMBAT WEIGHT	lb.	23,752	23,752		
Engine power		MAXIMUM	MILITARY		
Fuel	lb.	6,106	6,106		
Combat speed/combat altitude	kn./ft.	855/35,000	550/35,000		
Rate of climb/combat altitude	fpm/ft.	10,500/35,000	2,870/35,000		
Combat ceiling (500 fpm)	ft.	51,800	43,300		
Rate of climb at S.L.	fpm.	19,050	6,100		
Max. speed at S.L.	kn.	635	576		
Max. speed/altitude	kn./ft.	855/35,000	585/6300		
LANDING WEIGHT	lb.	19,046			
Fuel	lb.	1,400			
Stall speed - power-off/appr. power	kn./kn.	111.4/108.0			
Distance - ground roll/over 50 ft. obst.	ft./ft.	4,400/5,120			

NOTES

- (A) MILITARY POWER
 (B) INFLIGHT REFUELING - OUTBOUND ONLY
 TRANSFER 5315 LBS AT 755 N.MI. OUT. RADIUS
 IS REDUCED 16 N.MI. AND REFUEL ALLOWANCE
 IS INCREASED BY 5 MINUTES FOR EACH ADDITIONAL
 AIRCRAFT UP TO A TOTAL OF 4 AIRCRAFT.
 PERFORMANCE BASIS: FLIGHT TEST DATA OF F8U-1 MODIFIED
 TO F8U-1P CONFIGURATION

SPOTTING: A TOTAL OF 81 AIRCRAFT CAN BE
 ACCOMMODATED IN A LANDING SPOT ON THE FLIGHT
 AND HANGAR DECKS OF A CVA-19 CLASS ANGLED
 DECK CARRIER (FLIGHT 43; HANGAR 38 AIR-
 PLANES)

NAVAER-1395D (Rev. 1-55)

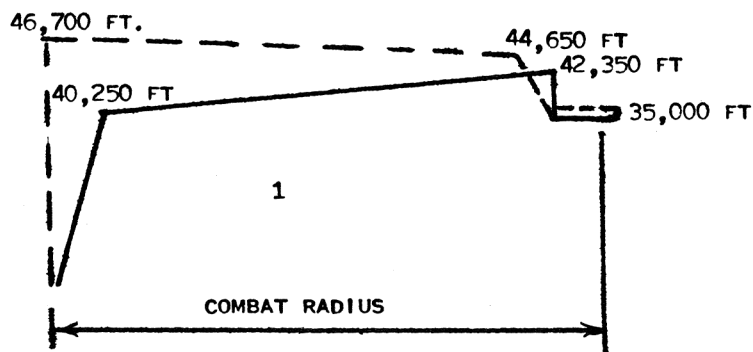


○ LOADING CONDITION COLUMN NUMBER

NOTES

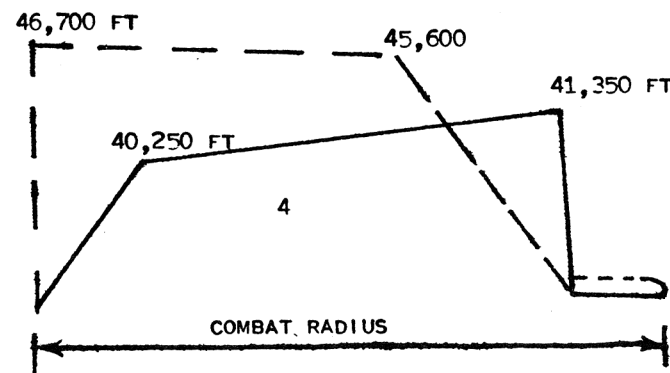
HIGH ALTITUDE PHOTOGRAPHIC MISSION

WARM-UP, TAKE-OFF, ACCELERATE: 5 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-OUT: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 DESCEND: TO 35,000 FEET (NO FUEL USED, NO DISTANCE GAINED)
 RUN-IN: AT 35,000 FEET FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 FUEL ALLOWANCE AT TARGET: 12 MINUTES WITH NORMAL RATED THRUST AT 35,000 FEET (NO CREDIT FOR DISTANCE GAINED)
 FUEL ALLOWANCE FOR EVASIVE ACTION: 3 MINUTES AT MAXIMUM THRUST FUEL FLOW AT A SPEED MIDWAY BETWEEN MAXIMUM SPEED WITH MILITARY RATED THRUST AND MAXIMUM SPEED WITH MAXIMUM RATED THRUST AT 35,000 FEET.
 RUN-OUT: AT 35,000 FEET FOR 50 N.MI AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-BACK: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 RESERVE: 20 MINUTES AT SPEED FOR MAXIMUM ENDURANCE AT SEA LEVEL PLUS 5 PERCENT OF INITIAL FUEL LOAD.



LOW ALTITUDE PHOTOGRAPHIC MISSION

WARM-UP, TAKE-OFF, ACCELERATE: 5 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-OUT: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 DESCEND: TO SEA LEVEL (NO FUEL USED, NO DISTANCE GAINED)
 RUN-IN: AT SEA LEVEL FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 FUEL ALLOWANCE AT TARGET: 8 MINUTES WITH NORMAL RATED THRUST AT SEA LEVEL (NO CREDIT FOR DISTANCE GAINED)
 FUEL ALLOWANCE FOR EVASIVE ACTION: 2 MINUTES AT MAXIMUM THRUST FUEL FLOW AT A SPEED MIDWAY BETWEEN MAXIMUM SPEED WITH MILITARY RATED THRUST AND MAXIMUM SPEED WITH MAXIMUM RATED THRUST AT SEA LEVEL.
 RUN-OUT: AT SEA LEVEL FOR 50 N.MI. AT MAXIMUM SPEED WITH MILITARY RATED THRUST.
 CLIMB: ON COURSE TO CRUISE ALTITUDE WITH MILITARY RATED THRUST.
 CRUISE-BACK: AT ALTITUDES AND SPEEDS FOR MAXIMUM RANGE.
 RESERVE: 20 MINUTES AT SPEED FOR MAXIMUM ENDURANCE AT SEA LEVEL PLUS 5 PERCENT OF INITIAL FUEL LOAD.



○ LOADING CONDITION COLUMN NUMBER