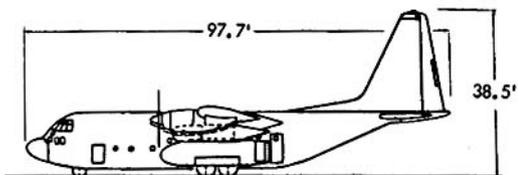
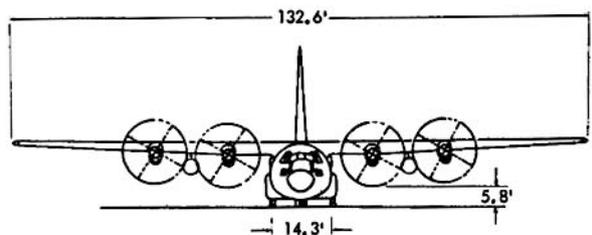
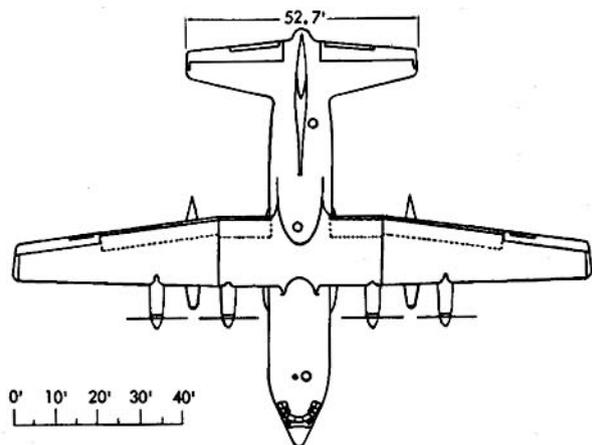




STANDARD AIRCRAFT CHARACTERISTICS
EC-130Q
LOCKHEED

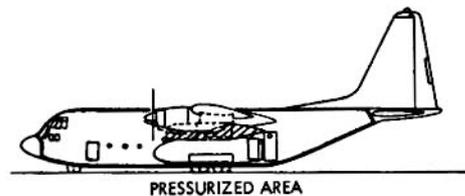
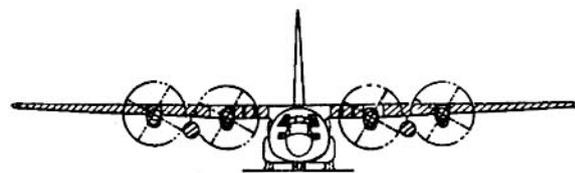
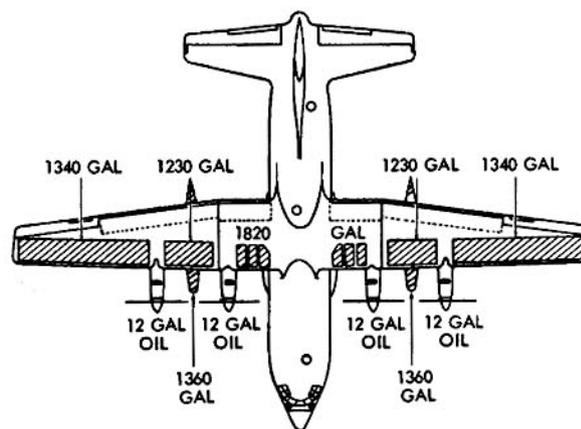
STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4A (REV. 7-65)

BUREAU OF NAVAL WEAPONS
NAVY DEPARTMENT



DESCRIPTIVE ARRANGEMENT

BUREAU OF NAVAL WEAPONS
NAVY DEPARTMENT



ARMAMENT AND TANKAGE

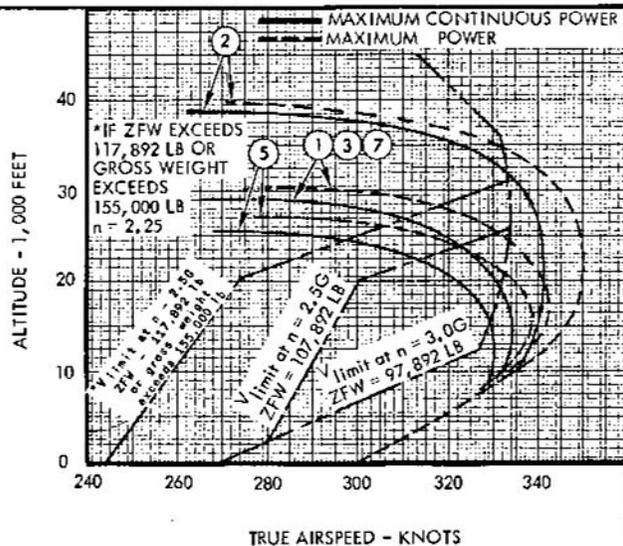
STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100 4B (Rev. 7-65)

POWER PLANT		MISSION AND DESCRIPTION		WEIGHTS																									
NO. AND MODEL	(4) T56-A-16	<p>A.F. Equivalent: None Mfr.'s Model: 382-44A-05</p> <p>The principal mission of the EC-130Q is the TACAMO mission.</p> <p>Significant features include facilities for flight crew and main fuselage airconditioning and pressurization, integral ramp and cargo door, thermal de-icing system for the leading edge of the wing and empennage, single point refueling, E-4 auto pilot, external fuel tanks, and Hi Energy brakes.</p> <p>The EC-130Q is similar to the C-130G.</p> <p>The EC-130Q can land and take off on short runways, and can operate from landing strips such as those found in advance base operations. Provisions exist for using externally mounted JATO units to provide additional thrust for take-off.</p>	<table border="1"> <thead> <tr> <th>LOADING</th> <th>LBS.</th> <th>L.F.</th> </tr> </thead> <tbody> <tr> <td>EMPTY</td> <td>68,750</td> <td>----</td> </tr> <tr> <td>BASIC WEIGHT</td> <td>70,731</td> <td>----</td> </tr> <tr> <td>DESIGN</td> <td>155,000</td> <td>2.5</td> </tr> <tr> <td>COMBAT</td> <td>106,231</td> <td>2.5</td> </tr> <tr> <td>MAX. TAKE-OFF (NORMAL)</td> <td>155,000</td> <td>2.5</td> </tr> <tr> <td>MAX. TAKE-OFF (OVERLOAD)</td> <td>175,000</td> <td>2.25</td> </tr> <tr> <td>NORMAL LAND (DESIGN)</td> <td>130,000</td> <td>8.0 FPS</td> </tr> </tbody> </table>			LOADING	LBS.	L.F.	EMPTY	68,750	----	BASIC WEIGHT	70,731	----	DESIGN	155,000	2.5	COMBAT	106,231	2.5	MAX. TAKE-OFF (NORMAL)	155,000	2.5	MAX. TAKE-OFF (OVERLOAD)	175,000	2.25	NORMAL LAND (DESIGN)	130,000	8.0 FPS
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MFG	ALLISON		*INTERNAL FUEL LESS THAN 25,000 LB. NO MORE THAN 6,600 LB.PER OUTBOARD TANK.																										
ENGINE SPEC. NO.	732																												
TYPE	AXIAL																												
RED. GEAR RATIO	0.0739																												
TAIL PIPE	FIXED AREA																												
PROP. MFR.	HAMILTON STANDARD																												
BLADE DESIGN NO.	A-711B-2																												
PROP. DIA.	13.5																												
NO. BLADES	4																												
<p>JATO</p> <p>NO. AND MODEL (B) (8) 15KS-1000 MK6</p> <p>MFR. AEROJET</p> <p>WEIGHT (LOADED) 200 LB. EACH</p>																													
<p>RATINGS</p> <table border="1"> <thead> <tr> <th>S. L. S.</th> <th>ESHP</th> <th>SHP</th> <th>LB.</th> <th>RPM</th> <th>MIN.</th> </tr> </thead> <tbody> <tr> <td>*T.O.</td> <td>4910</td> <td>4591</td> <td>797</td> <td>13,820</td> <td>5</td> </tr> <tr> <td>MAX.</td> <td>4680</td> <td>4368</td> <td>781</td> <td>13,820</td> <td>30</td> </tr> <tr> <td>MAX.</td> <td>4365</td> <td>4061</td> <td>760</td> <td>13,820</td> <td>Cont.</td> </tr> </tbody> </table> <p>JATO</p>		S. L. S.	ESHP	SHP	LB.	RPM	MIN.	*T.O.	4910	4591	797	13,820	5	MAX.	4680	4368	781	13,820	30	MAX.	4365	4061	760	13,820	Cont.				
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<p>THRUST (LB.) 8 x 1090</p> <p>DURATION (SEC.) 15</p> <p>*CURRENTLY LIMITED TO 4200 PSHP. BASED ON AIRPLANE STRUCTURAL LIMIT.</p>																													
ELECTRONICS																													
PUBLIC ADDRESS	AIC-13																												
GLIDEPATH (ILS)	ARN-67 (2)																												
HF RADIO	ARC-132																												
	HF-102 (Provisions)																												
	51Z-4																												
MARKER BEACON	ARN-87 (2)																												
VHF NAV (VOR, ILS)	ARA-50																												
UHF DIR. FINDER	ARN-83 (2)																												
RADIO COMPASS	ARN-52 (2)																												
TACAN	U-1402 (2)																												
UHF RADIO	ARC-101																												
VHF RADIO	AIC-18A																												
INTERPHONE	APN-150																												
ALTIMETER-LOW	APN-133A																												
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IFF	APN-59B																												
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PRESS. KIT	AF STD (2)																												
FLIGHT DRIECTOR	(CPU-65)																												
COMPASS	AHRU & C-12																												
DOPPLER	APN-153																												
NAV COMPUTER	ASN-41																												
WIND COMPUTER	ASN-41																												
AUTOPILOT	E-4																												
ACCELEROMETER	MIL-A-22145																												
COUNTING GROUP	(PROVISIONS)																												
		DEVELOPMENT																											
		Date of Contract.....	January 1967																										
		First Flight.....	November 1967																										
		First Acceptance.....	December 1967																										
		First Service.....	March 1968																										
		DIMENSIONS																											
		WING SPAN	132.6'																										
		INCIDENCE (ROOT)	3°																										
		INCIDENCE (TIP)	0°																										
		DIHEDRAL	2°30'																										
		SWEEPBACK (18% CHORD)	0°																										
		AREA	1745.5 SQ. FT.																										
		LENGTH	97.74'																										
		HEIGHT	38.5'																										
		TREAD	14.3'																										
		PROP GROUND CLEARANCE	5.8'																										
		CARGO																											
		MAXIMUM LOAD DIMENSIONS																											
		LENGTH.....	41.0'																										
		WIDTH.....(CENTER SECTION).....	9.96'																										
		HEIGHT.....	8.8'																										
		OPENING FOR CARGO LOADING																											
		WIDTH BETWEEN ADS RODS.....	9.65'																										
		RAMP CURBS.....	9.52'																										
		HEIGHT CARGO FLOOR-UPPER DOOR....	9.08'																										
		MAXIMUM CARGO WEIGHT																											
		(155,000 LBS. GROSS WEIGHT)																											
		56,000 LBS. AT 2.5 G LIMIT LOAD FACTOR WITH 28,269 LBS. FUEL (JP-5)																											

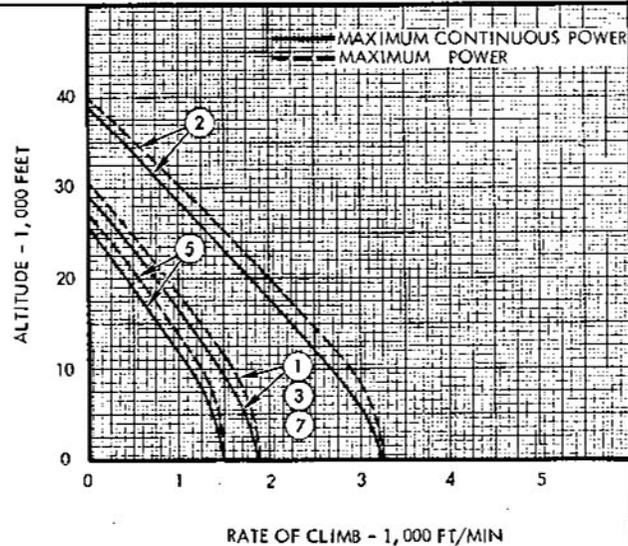
STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100-4C (Rev. 7-65)

PERFORMANCE SUMMARY				
TAKE-OFF LOADING CONDITION	① DESIGN MAXIMUM PAYLOAD	③ DESIGN MAXIMUM FUEL	⑤ MAXIMUM OVERLOAD	(7) TACAMO MISSION
TAKE-OFF WEIGHT lb.	155,000	155,000	175,000	155,000
Fuel internal/external JP-51 6.8 LB/GAL lb./lb.	47,324/11,945	(1) 47,324/18,500	(1) 47,324/18,500	47,324/11,945
Payload lb.	25,000	18,445	38,445	25,000
Wing loading lb./sq. ft.	88.8	88.8	100.3	88.8
Stall speed—power-off (2) kn.	102	102	109	102
Take-off run at S.L.— calm (7)/ATO (3)(7) ft.	3,550/2,350	3,550/2,350	4,700/3,150	3,550/2,350
Take-off run at S.L.— 25 kn. wind ft.	2,250	2,250	3,000	2,250
Take-off to clear 50 ft.— calm (8)/ATO(3)(7) ft.	4,480/3,300	4,480/3,300	6,025/4,380	4,480/3,300
Max. speed/altitude (4) (9) kn./ft. *	331/19,500	* 331/19,500	* 306/22,300	* 331/19,500
Rate of climb at S.L. (4) (8) fpm.	1,880	1,880	1,530	1,880
Time: S.L. to 20,000 ft. (4) min.	15.5	15.5	22.2	15.5
Time: S.L. to SERVICE CEILING (4) min.	43.4	43.4	42.3	43.4
Service ceiling (100 fpm)(4) ft.	28,500	28,500	24,500	28,500
Combat range n.mi.	4,143	4,763	4,105	4,049
Average cruising speed kn.	310	292	306	302
Cruising altitudes(1) ft.	26,300/36,000	26,300/38,800	22,500/34,300	26,300/37,300
Combat radius/mission time n.mi./hr.	2,012/13.96	2,282/15.97	1,960/14.37	1,000/10.39
Average cruising speed (4) kn.	297/297	274/274	285/289	286/286
Loiter time on station at 1000 n.mi., Tacamo Mission hr.				3.41
COMBAT LOADING CONDITION	② 60% MISSION FUEL NO PAYLOAD	④ 60% MISSION FUEL NO PAYLOAD	⑥ 60% MISSION FUEL NO PAYLOAD	(8) 60% MISSION FUEL NO PAYLOAD
COMBAT WEIGHT lb.	106,231	110,181	110,181	106,331
Engine power	MAXIMUM	MAXIMUM	MAXIMUM	MAXIMUM
Fuel lb.	35,500	39,450	39,450	35,600
Combat speed/combat altitude (9) kn./ft. *	* 329/35,200	* 332/33,900	* 332/33,900	* 329/35,200
Rate of climb/combat altitude fpm/ft.	500/35,200	500/33,900	500/33,900	500/35,200
Combat ceiling (500 fpm) ft.	35,200	33,900	33,900	35,200
Rate of climb at S.L. (8) fpm.	3,300	3,090	3,090	3,300
Max. speed at S.L. (8) (9) kn. *	* 270	* 270	* 270	* 270
Max. speed/altitude (9) kn./ft. *	* 332/34,800	* 333/33,800	* 333/3380	* 332/34,800
LANDING WEIGHT (5) lb.	100,631	94,546	114,517	100,626
Fuel lb.	4,900	5,170	5,341	4,895
Stall speed—power-off/approach power (2) kn./kn.	83/69	80/66	88/73	83/69
Landing distance—ground roll/over 50 ft. obst. (6) ft./ft.	1,530/2,500	1,530/2,480	1,610/2,580	1,530/2,500
* STRUCTURAL SPEED LIMITED	NOTES			
(1) MAXIMUM FUEL LIMITED TO 65,824 LBS.	(5) CARGO AND FUEL RESERVES			
(2) 100% FLAPS	(6) NO REVERSE THRUST			
(3) 8-1000 LB THRUST ATO UNITS - OPERATING FOR 14 SEC.	(7) 50% FLAPS - TAKE-OFF POWER (4200 pshp LIMITED)			
(4) MAXIMUM CONTINUOUS POWER	(8) 4200 pshp LIMITED			
	(9) SPEED LIMITED			

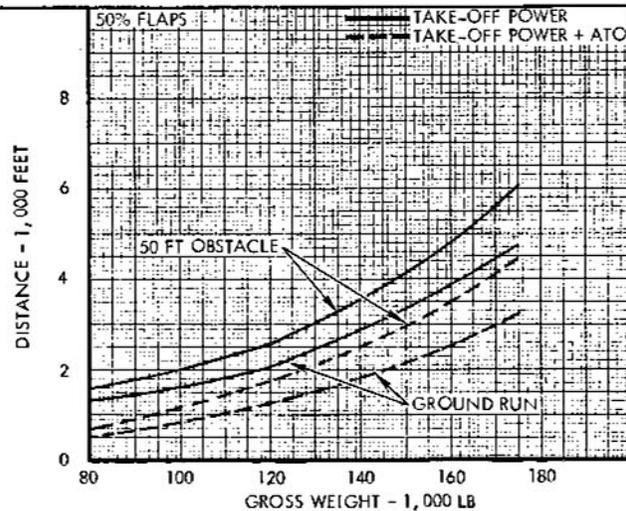
SPEED



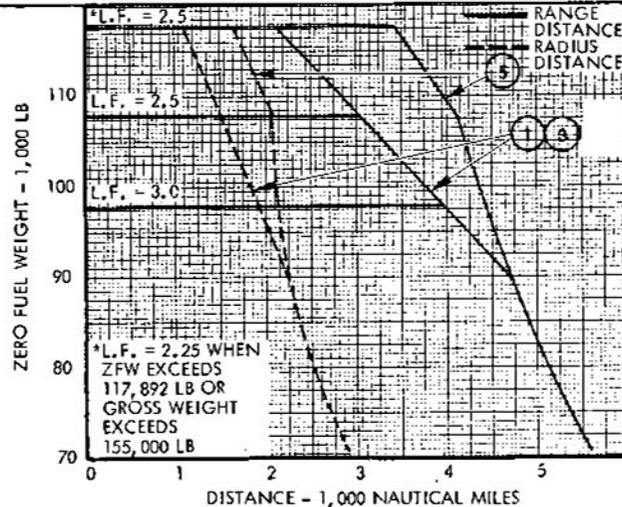
CLIMB



TAKE-OFF



PAYLOAD DISTANCE



○ LOADING CONDITION COLUMN NUMBER

STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100/4F (REV. 7-65)

NOTES

RANGE MISSION

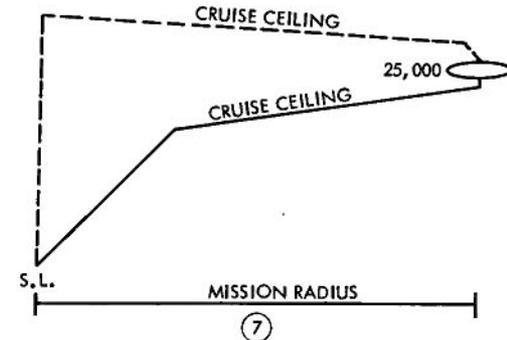
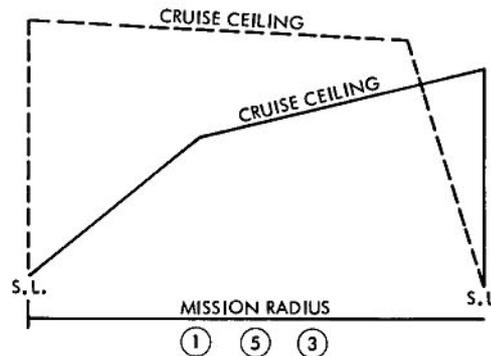
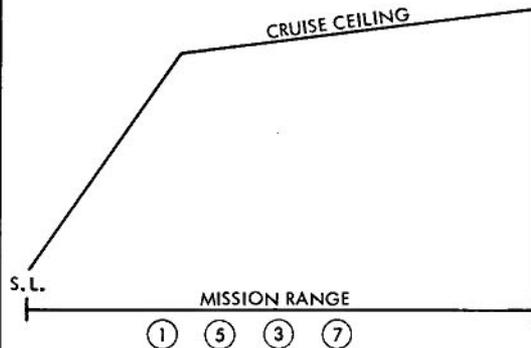
START ENGINES, WARM UP, TAKE-OFF
ACCELERATE TO CLIMB SPEED.
5 MINUTES AT MAXIMUM CONTINUOUS
POWER AT SEA LEVEL.
CLIMB ON COURSE TO CRUISE CEILING
AT MAXIMUM CONTINUOUS POWER.
CRUISE TO REMOTE BASE AT SPEEDS
FOR MAXIMUM RANGE AT ALTITUDES
FOR MAXIMUM RANGE.
LAND AT REMOTE SEA LEVEL BASE WITH
RESERVES (NO FUEL CONSUMED, NO
DISTANCE CREDIT).
RESERVE: 30 MINUTES AT SEA LEVEL
AT SPEEDS FOR MAXIMUM ENDURANCE
PLUS 5% OF INITIAL FUEL.

RADIUS MISSION

START ENGINES, WARM UP, TAKE-OFF
ACCELERATE TO CLIMB SPEED.
5 MINUTES TO MAXIMUM CONTINUOUS
POWER AT SEA LEVEL.
CLIMB ON COURSE TO CRUISE CEILING
AT MAXIMUM CONTINUOUS POWER.
CRUISE TO REMOTE SEA LEVEL BASE AT
SPEEDS FOR MAXIMUM RANGE AT ALTI-
TUDES FOR MAXIMUM RANGE.
LAND AT REMOTE SEA LEVEL BASE AND
UNLOAD ENTIRE CARGO (NO FUEL CON-
SUMED, NO DISTANCE CREDIT).
START ENGINES, WARM UP, TAKE-OFF,
ACCELERATE TO CLIMB SPEED.
5 MINUTES AT MAXIMUM CONTINUOUS
POWER AT SEA LEVEL.
CLIMB ON COURSE TO CRUISE CEILING
AT MAXIMUM CONTINUOUS POWER.
CRUISE TO HOME BASE AT SPEEDS FOR
MAXIMUM RANGE AT ALTITUDES FOR
MAXIMUM RANGE.
LAND AT HOME BASE WITH RESERVES.
RESERVES: 30 MINUTES AT SEA LEVEL
AT SPEEDS FOR MAXIMUM ENDURANCE
PLUS 5% OF INITIAL FUEL.

TACAMO MISSION

START ENGINES, WARM UP, TAKE-OFF
ACCELERATE TO CLIMB SPEED.
5 MINUTES AT MAXIMUM CONTINUOUS
POWER AT SEA LEVEL.
CLIMB ON COURSE TO CRUISE CEILING
AT MAXIMUM CONTINUOUS POWER.
CRUISE TO STATION AT SPEEDS FOR
MAXIMUM RANGE AT ALTITUDES FOR
MAXIMUM RANGE.
CLIMB TO 25,000 FT. (NO DISTANCE
CREDIT).
LOITER AT 25,000 FT. AT MAXIMUM
CONTINUOUS POWER.
CLIMB ON COURSE TO CRUISE CEILING
AT MAXIMUM CONTINUOUS POWER.
CRUISE TO HOME BASE AT SPEEDS FOR
MAXIMUM RANGE AT ALTITUDES FOR
MAXIMUM RANGE.
LAND AT HOME BASE WITH RESERVES.
RESERVES: 30 MINUTES AT SEA LEVEL AT
SPEEDS FOR MAXIMUM ENDURANCE
PLUS 5% OF INITIAL FUEL.



PERFORMANCE BASIS: LOCKHEED ENGINEERING
REPORT NO. 9078 EC-130Q
SUBSTANTIATING DATA
REPORT

○ LOADING CONDITION COLUMN NUMBER

STANDARD AIRCRAFT CHARACTERISTICS, NAVWEPS FORM 13100 4G (Rev. 7-65)