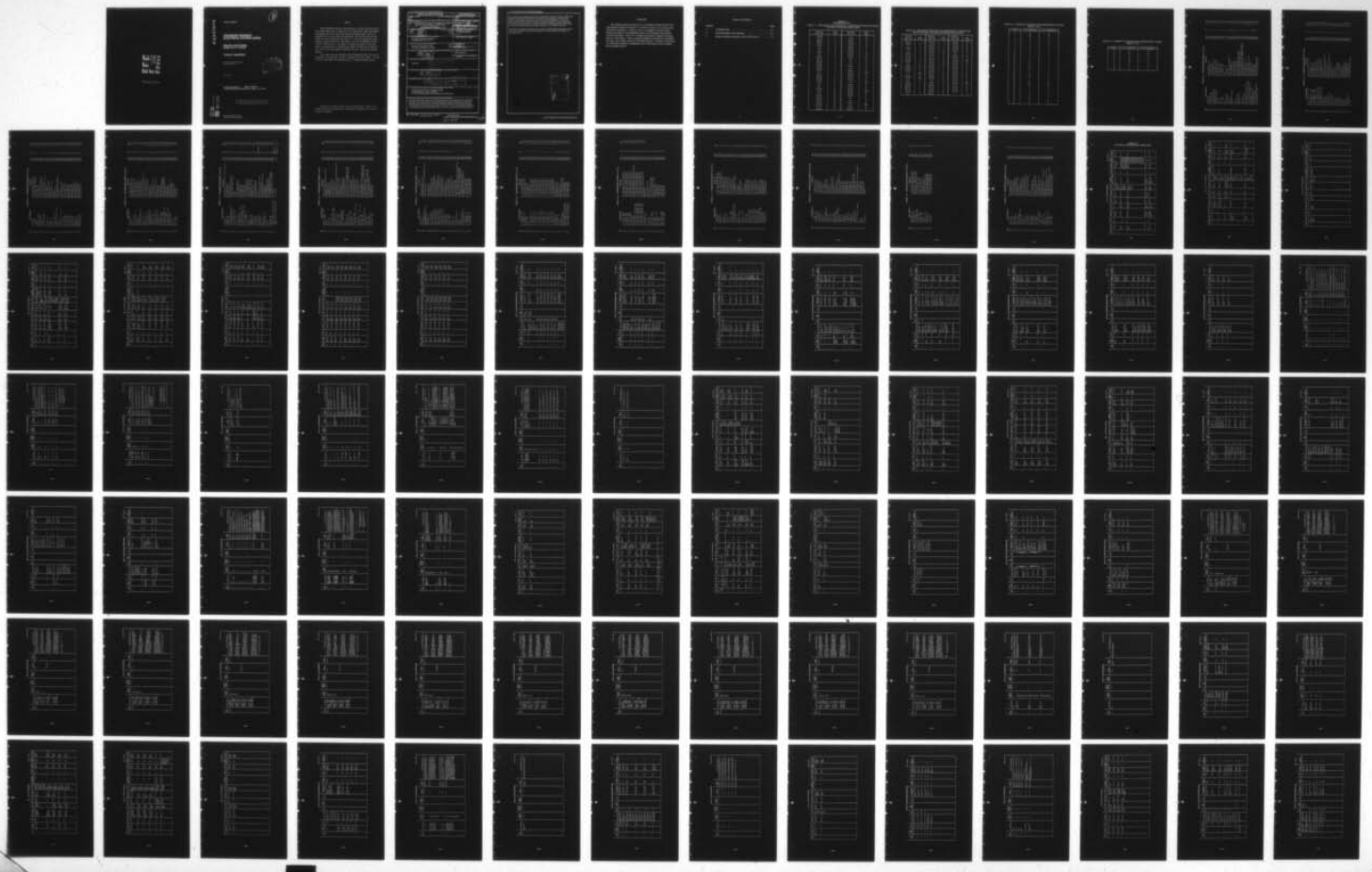
AD-A047 860 ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES) DEFINITION AND PROTOTYPE DESIG..(U) GRUMMAN AEROSPACE CORP BETHPAGE N Y G COTTER ET AL. JUL 76 1/4

UNCLASSIFIED NADC-76194-30-VOL-2 N62269-75-C-0392 F/G 9/3 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

AD A047860

NADC–76194-30

ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES)

Definition and Prototype Design for F-14 Aircraft

Volume 2: Appendixes

Grumman Aerospace Corporation
Bethpage, New York

DDC
RECEIVED
DEC 20 1977
F

JULY 1976

TECHNICAL REPORT NADC–76194–30
INTERIM REPORT FOR PERIOD JULY 1975 – JULY 1976

AD NO.
DDC FILE COPY

Approved for public release; distribution unlimited

Naval Air Development Center
Warminster, Pennsylvania 18174

NOTICE

When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility nor any obligation whatsoever; and the fact that the Government may have formulated, furnished, or in any way supplied the said drawings, specifications, or other data, is not to be regarded by implication or otherwise as in any manner licensing the holder or any other person or corporation, or conveying any rights or permission to manufacture, use or sell any patented invention that may in any way be related thereto.

This report has been reviewed by the Information Office (OI) and is releasable to the National Technical Information Services (NTIS). At NTIS, it will be available to the general public, including foreign nations.

Copies of this report should not be returned unless return is required by security considerations, contractual obligations, or notice on a specific document.

SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER (6)

2. GOVT ACCESSION NO.

3. RECIPIENT'S CATALOG NUMBER (9)

4. TITLE (and Subtitle)
ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES) DEFINITION AND PROTOTYPE DESIGN FOR F-14 AIRCRAFT.
Vol. 1: Technical; Vol. 2: Appendixes Volume 2 • Appendixes.

5. TYPE OF REPORT & PERIOD COVERED
Final Technical Report • July 1975 – July 1976

6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s) (10)
G. Cotter
H. Siegel
P. Pisani
P. De Rosa

8. CONTRACT OR GRANT NUMBER(s) (15)
N-62269-75-C-0392

9. PERFORMING ORGANIZATION NAME AND ADDRESS
Grumman Aerospace Corporation
Bethpage, New York 11714

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS

11. CONTROLLING OFFICE NAME AND ADDRESS (11)
Naval Air Development Center
Warminster, Pennsylvania 18974

12. REPORT DATE
July 1976

13. NUMBER OF PAGES

14. MONITORING AGENCY NAME & ADDRESS *(if different from Controlling Office)* (12) 329pp.

15. SECURITY CLASS. *(of this report)*
UNCLASSIFIED

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT *(of this Report)*
Approved

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

17. DISTRIBUTION STATEMENT *(of the abstract entered in Block 20, if different from Report)*
(18) NADC

18. SUPPLEMENTARY NOTES
(19) 76194-30-VOL-2

19. KEY WORDS *(Continue on reverse side if necessary and identify by block number)*
Advanced Aircraft Electrical Systems (AAES)
Solid State Electric Logic (SOSTEL)
F-14A Aircraft Advanced Power Generation and Distribution

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*
This report describes the application of advanced electrical power generation and distribution concepts to the F-14A aircraft. The study is designed to provide a baseline from which the concepts of the Advanced Aircraft Electrical Systems (AAES) can be developed and tested in the laboratory and on a prototype aircraft. The Navy F-14A aircraft was used as the vehicle to which the study concept was applied, and from which the study data base was developed.

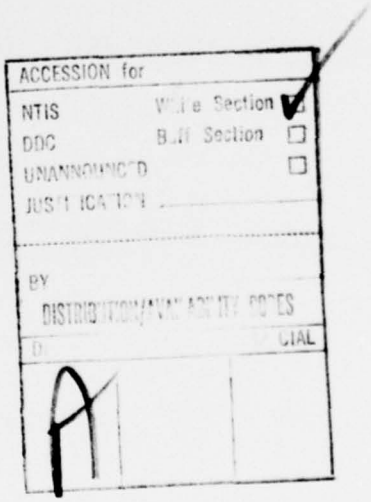
DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-014-6601

UNCLASSIFIED
SECURITY CLASSIFICATION OF THIS PAGE *(When Data Entered)*

388847

Two advanced power generation concepts, Variable Speed Constant Frequency (VSCF), and Constant Frequency Generator-DC Link (CFG-DC) were investigated. The Solid State Electric Logic (SOSTEL) system was used to provide power distribution. This system employs data bus/remote terminal concepts, solid state transducers, and solid state power controllers to provide the control, protection and power interlocks presently implemented on the aircraft by electromechanical devices (switches, circuit breakers and relays).

This preliminary design study identifies the system, hardware/software operational, installation, thermal, reliability, and flight test requirements for the application of AAES to a prototype aircraft.



FOREWORD

Data tabulated during the analysis of F-14A Integrated Weapons Systems Functional Diagrams (IWSFD) NAVAIR No. 01-F-14AAA-16 and No. 01-F-14AAA-16A is documented in Appendix B. Tables A-1 and A-2 of Appendix A provide a serial-numerical correlation of the identification codes of the transducers and equations with the IWSFD figure. Table A-3 is a listing of the number of equations and transducers by IWSFD figure. Table A-4 serially identifies the transducers by identification codes, name, signal source and IWSFD figure number. Appendix C records Bendix Corporation comments on specification MIL-E-23001A(AS) in order of specification paragraph number.

TABLE OF CONTENTS

Appendix		Page
A	Correlation Data	A-1
B	Functional Diagram Data Tabulation	B-1
C	Bendix Corporation Comments to MIL-E-23001A (AS)	C-1

Appendix A
CORRELATION DATA

TABLE A-1. TRANSDUCER AND ASSOCIATED F-14 INTEGRATED WEAPON SYSTEMS FUNCTIONAL DIAGRAMS (IWSFD) INDEX

Transducer Ident Code	IWSFD Figure	Transducer Ident Code	IWSFD Figure
001-002	1	163	35
003-005	2	164-179	42
006-007	3	180-187	35
008-011	8	188-190	42
012-015	9	191-215	30
016	11	216-250	1
017	5	251-253	17
018-019	12	254-256	18
020	14	257-260	19
021-025	1	261-275	20
026-030	2	276	27
031-033	1	277	43
034-047	2	278	15
048-058	3	279-280	19
059-070	5	281	20
071-072	2	282-288	10
073	3	289-499	OPEN
074-075	7	500-508	45
076-082	16	509-517	29
083-093	44	518-541	46
094-100	33	542	OPEN
101	34	543-549	46
102	1	550-578	43
103-104	34	579-581	46
105-108	37	582-699	OPEN
109	38	700-708	1A
110-123	39	709-718	3A
124-130	32	719	4A
131-136	40	720	5A
137-153	32	721-724	4A
154-156	40	725	OPEN
157-158	38	726-727	4A
159-162	40	728-729	5A

TABLE A-2. EQUATION/CONTROLLER AND ASSOCIATED F-14 INTEGRATED WEAPON SYSTEMS FUNCTIONAL DIAGRAMS (IWSFD) INDEX

Equation/ Controller Ident Code	IWSFD Figure	Equation/ Controller Ident Code	IWSFD Figure	Equation/ Controller Ident Code	IWSFD Figure
001-017	1	112-116	5	375-376	27
018-025	2	117-119	2	377-378	15
026	3	120-123	3	379-380	19
027-030	4	124-125	7	381-382	10
031	5	126-157	16	383-396	20
032-036	6	158-167	44	397	17
037-040	7	168-174	33	398-401	10
041-055	8	175-179	34	402-403	15
056-059	9	180-181	37	404-499	OPEN
060-061	10	182-192	38	500-504	41
062	11	193-194	39	505-516	45
063-064	12	195-206	32	517-528	29
065-066	13	207-209	3	529-532	46
067-076	14	210-223	32	533-534	15
077	OPEN	224-235	40	535-536	46
078-081	15	236-261	42	537-538	10
082-084	OPEN	262-276	35	539-558	46
085	15	277	42	559-592	43
086-094	1	278-299	30	593-699	OPEN
095-098	2	300-321	1	700-715	1A
099-101	1	322-331	17	716-726	3A
102-106	2	332-337	18	727-740	4A
107-110	3	338-347	19	741-751	5A
111	6	348-374	20		

TABLE A-3. NUMBER OF EQUATIONS AND TRANSDUCERS BY FIGURE
(SHEET 1 OF 2)

Figure	No. of Equations	No. of Transducers
1	51	47
2	20	24
3	12	14
4	4	0
5	6	13
6	6	0
7	6	2
8	15	4
9	4	4
10	9	7
11	1	1
12	2	2
13	2	0
14	10	1
15	11	1
16	32	7
17	11	3
18	6	3
19	12	6
20	42	16
27	2	1
29	12	9
30	22	25
32	26	24
33	7	7
34	5	3
35	15	9
37	2	4
38	11	3
39	2	14
40	12	13
41	5	0

TABLE A-3. NUMBER OF EQUATIONS AND TRANSDUCERS BY FIGURE
(SHEET 2 OF 2)

Figure	No. of Equations	No. of Transducers
42	27	19
43	34	30
44	10	11
45	12	9
46	26	34
1A	16	9
3A	11	10
4A	14	7
5A	11	3

TABLE A-4. TRANSDUCERS (SHEET 1 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
001	> 62° WING SWEEP	WING POS. SW (51AS)	CKS001	1	0.1 CPS
002	LEFT MLG WOW	LEFT MLG SAFETY SWITCH (45S1)	GDS002	1	1 CPF
003	RGT MAIN AC PWR ON LINE	AC PWR CONTACTORS (66A6)	XAS003	2	1 CPF
004	LFT MAIN AC PWR ON LINE	AC PWR CONTACTORS (66A6)	XAS004	2	1 CPF
005	GND COOLING PRESS INTLK - HIGH	GND COOLING PRESS INTLK SW (55S2)	HNS005	2	1 CPF
006	ENG/PROBES ANTI-ICE SW-ORIDE	EXT. ENVIR CONTROL PNL (792A1)	HAS006	3	2 CPF
007	ENG/PROBES ANTI-ICE ST-AUTO	EXT. ENVIR CONTROL PNL (792A1)	HAS007	3	2 CPF
008	CRYTO - ON	KY-28 CONTROL PNL (12A2)	RFS008	8	2 CPF
009	CRYTO - RELAY	KY-28 CONTROL PNL (12A2)	RFS009	8	2 CPF
010	CRYTO - PLAIN	KY-28 CONTROL PNL (12A2)	RFS010	8	2 CPF
011	CRYTO - ZEROIZE	KY-28 CONTROL PNL (12A2)	RFS011	8	2 CPF
012	IFF ENA	AN/AWG 9	WJS012	9	1 CPS
013	PILOT EJECT - NORMAL	PILOT EJECT SW (09S2)	WJS013	9	1 CPF
014	MODE 4 CODE ZEROIZE	IFF TRANSPONDER	SXS014	9	1 CPS
015	R-AICS HYDR-ON	RIGHT AIR INLET CONTROL PROGRAMMER (32A7)	DHS015	46	0.1 CPS
016	HSD/ECMD - ON	DISPLAYS CONTROL PANEL (709A1)	TES016	11	2 CPF
017	THROTTLE MODE SW - BOOST/AUTO	PILOTS LEFT SIDE CONSOLE	QKS017	5	4 CPF
018	VDI- ON	DISPLAYS CONTROL PANEL (709A1)	FES018	12	2 CPF
019	HUD - ON	DISPLAYS CONTROL PANEL (709A1)	FES019	12	2 CPF
020	GYRO/WSHLD HT - ON	SYS TEST - SYS PWR PANEL (790A1)	HNS020	14	4 CPF
021	RUDDER TRIM SW - LEFT	INLET RAMPS/ENG CRANK/THROTTLE CONTROL PWR (710A1)	CJS021	1	4 CPF
022	RUDDER TRIM SW - RIGHT	INLET RAMPS/ENG CRANK/THROTTLE CONTROL PNL (710A1)	CJS022	1	4 CPF
023	TRIM SW - UP	CONTROL STICK (20A4) HAND GRIP (20A4A2) TRANSDUCER ASSY (20A4A1)	CFS023	1	4 CPF
024	TRIM SW - DOWN	CONTROL STICK (20A4) HAND GRIP (20A4A2) TRANSDUCER ASSY (20A4A1)	CFS024	1	4 CPF
025	ATTITUDE HOLD SELECTED	AFCS CONTROL PANEL (20A9)	CFS025	1	10 CPF
026	HORIZONTAL TAIL AUTHORITY STOP SW - OPEN	HORIZ TAIL AUTHORITY STOP SW (50S1)	CFS026	2	10 CPF
027	WING SWEEP HANDLE POS. SW - RAISED 2.5 INCHES	THROTTLE QUADRANT (711A1)	CFS027	2	0.1 CPS
028	HORIZ TAIL RESTRICTED AUTHORITY SW - RESTRICTED	HORIZ TAIL RESTRICTED AUTHORITY SW (50S2)	CFS028	2	0.1 CPS
029	AFT STICK AUTHORITY SW - REDUCED AUTHORITY	AFT STICK AUTHORITY SW (50S3)	CFS029	2	0.1 CPS
030	WING SWEEP HANDLE POS. SW.- < 68°	THROTTLE QUADRANT (711A1)	CKS030	2	0.1 CPS
031	COMBINED HYD PRESS SW - NORMAL	COMB HYD PRESS SW (63S1)	DHS031	1, 35	1 CPF
032	FLT HYD PRESS SW - NORMAL	FLT HYD PRESS SW (63S2)	DHS032	1, 35	1 CPF
033	AUTO PILOT ENGAGE NOSEWHEEL STEERING ENGAGE	CONTROL STICK (20A4) HAND GRIP (20A4A2)	GHS033	1	1 CPF
034	LFT AUX FLAP RETRACT SW - RETRACT	P/O LEFT AUX FLAP RETRACT SW (51S17)	CKS034	2	0.1 CPS

TABLE A-4. TRANSDUCERS (SHEET 2 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
035	RIGHT AUX FLAP RETRACT SW - RETRACT	P/O RIGHT AUX FLAP RETRACT SW (51S18)	CKS035	2	0.1 CPS
036	FLAP HANDLE - < 6°	FLAP 6° SWITCH (51S19)	CKS036	2	0.1 CPS
037	LEFT SLAT ASYMMETRY SW - CLOSED	LEFT SLAT ASYMMETRY SW (51S7)	CKS037	2	0.1 CPS
038	RIGHT SLAT ASYMMETRY SW - CLOSED	RIGHT SLAT ASYMMETRY SW (51S8)	CKS038	2	0.1 CPS
039	LEFT FLAP ASYMMETRY SW - CLOSED	LEFT FLAP ASYMMETRY SW (51S5)	CKS039	2	0.1 CPS
040	RIGHT FLAP ASYMMETRY SW - CLOSED	RIGHT FLAP ASYMMETRY SW (51S6)	CKS040	2	0.1 CPS
041	RIGHT FLAP OVERTRAVEL UP SW - CLOSED	RIGHT FLAP OVERTRAVEL UP SW (51S13)	CKS041	2	0.1 CPS
042	RIGHT FLAP OVERTRAVEL DOWN SW - CLOSED	RIGHT FLAP OVERTRAVEL DOWN SW (51S14)	CKS042	2	0.1 CPS
043	LEFT FLAP OVERTRAVEL UP SW - CLOSED	LEFT FLAP OVERTRAVEL UP SW (51S15)	CKS043	2	0.1 CPS
044	LEFT FLAP OVERTRAVEL DOWN SW - CLOSED	LEFT FLAP OVERTRAVEL DOWN SW (51S16)	CKS044	2	0.1 CPS
045	WING SWEEP SW - 20°	P/O WING SWEEP SW (51AS)	CKS045	2	0.1 CPS
046	FLAP HANDLE - 70°	FLAP HANDLE POS. SW. (P/O THROTTLE QUAD 711A1)	CKS046	2	0.1 CPS
047	FLAP INTLK ENGAGED	WING SWEEP/FLAP AND SLAT CONTROL BOX	CKS047	2	0.1 CPS
048	EXTERIOR LITES - OFF	THROTTLE QUADRANT (711A1)	LAS 048	3	4 CPF
049	HOOK CONTROL HANDLE - DOWN	HOOK/GUN PANEL (706A1) HOOK CONTROL HANDLE (49A1)	GGS049	3	1 CPF
050	HOOK BYPASS - CARRIER	MASTER LITE CONTROL PANEL (713A1)	GGS050	3	1 CPF
051	ARRESTING HOOK - DOWN	HOOK DOWN SWITCH (49S2)	GGS051	3	1 CPF
052	MLG HANDLE - DOWN	MLG HANDLE (785A1)	GDS052	3	2 CPF
053	HIGH APPROACH	ϕ ATTK INDICATOR (45A2)	LAS053	3	10 CPF
054	DOOR SWITCH - OPEN	SYS TEST - SYS PWR PNL (790A1)	WAS054	3	1 CPF
055	TEST-DEPRESSED	SYS TEST - SYS PWR PNL (790A1)	NJS055	3	10 CPF
056	ϕ ATTK - SELECTED	SYS TEST - SYS PWR PNL (790A1)	LAS056	3	1 CPF
057	LOW APPROACH	ϕ ATTK INDICATOR (45A2)	LAS057	3	10 CPF
058	NORMAL APPROACH	ϕ ATTK INDICATOR (45A2)	LAS058	3	10 CPF
059	AUTO INITIATE	THROTTLE CONTROL COMPUTER (21A1)	QKS059	5	0.1 CPS
060	NO FRICTION	P/O THROTTLE QUADRANT (711A1)	QKS060	5	0.1 CPS
061	R. THROTTLE LEVER - 8 LBS	P/O THROTTLE QUADRANT (711A1)	QKS061	5	0.1 CPS
062	L. THROTTLE LEVER - 8 LBS	P/O THROTTLE QUADRANT (711A1)	QKS062	5	0.1 CPS
063	6° < MIL LEFT	P/O LEFT THROTTLE CONTROL ACTUATOR (21A7)	QKS063	5	0.1 CPS

TABLE A-4. TRANSDUCERS (SHEET 3 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
064	6° > IDLE LEFT	P/O LEFT THROTTLE CONTROL ACTUATOR (21A7)	QKS064	5	0.1 CPS
065	6° > IDLE RIGHT	P/O RIGHT THROTTLE CONTROL ACTUATOR (21A7)	QKS065	5	0.1 CPS
066	6° < MIL RIGHT	P/O RIGHT THROTTLE CONTROL ACTUATOR (21A7)	QKS066	5	0.1 CPS
067	FLT GEAR DN	MASTER TEST PANEL (734A1)	MJS067	5	1 CPF
068	TEST SELECTOR - DEPRESSED	MASTER TEST PANEL (734A1)	MJS068	5	10 CPF
069	LEFT TORQUE LIMIT NOT	P/O LEFT THROTTLE CONTROL ACTUATOR (21A7)	QKS069	5	0.1 CPS
070	RIGHT TORQUE LIMIT NOT	P/O RIGHT THROTTLE CONTROL ACTUATOR (21A7)	QKS070	5	0.1 CPS
071	WING SWEEP	SYS TEST - SYS PWR PANEL (790A1)	CKS071	2	1 CPF
072	FLAP INTERLOCK DISENGAGED	WING SWEEP/FLAP AND SLAT CONTROL BOX (50A2)	CKS072	2	0.1 CPS
073	LTS	MASTER TEST PANEL (734A1)	LAS073	3	1 CPF
074	RADAR BEACON - OFF	RADAR BEACON CONTROL PANEL (19A2)	TPS074	7	4 CPF
075	ACLS SELECTED	RADAR BEACON CONTROL PANEL (19A2)	TPS075	7	4 CPF
076	MCB ENABLE	ARMAMENT PANEL (85A1)	KCS076	16	20 CPF
077	EMERG STORES JETT	EMERG STORES JETT PUSHBUTTON (85S2)	AMS077	16	1 CPF
078	ACM - ON	ACM PANEL (702A1)	AMS078	16	10 CPF
079	FUSE ENABLE INTLK (28VDC)	ARMAMENT PANEL (85A1)	AMS079	16	0.1 CPS
080	ARMAMENT SAFETY ORIDE SWITCH - ENABLED	ARMAMENT SAFETY OVERRIDE SWITCH (85S3)	AMS080	16	1 CPF
081	ACM JETT	ACM JETT PUSHBUTTON SWITCH (ACM PANEL 702A1)	AMS081	16	1 CPF
082	MASTER ARM - ON	ACM PANEL (702A1)	AMS082	16	1 CPF
083	PROBE OUT/LOCKED SWITCH - LOCKED	P/O PROBE HARNESS SWITCHES (62S1)	QFS083	44	10 CPF
084	TAXI LITES - ON	MASTER LITE CONTROL (713A1)	LRS084	44	4 CPF
085	NLG - DOWN AND LOCKED	NLG DOWN & LOCKED SWITCH (75S3)	GDS085	44	1 CPF
086	ANTI-COLLISION LITES - ON	MASTER LITE CONTROL (713A1)	LNS086	44	1 CPF
087	MASTER LITE - STEADY	MASTER LITE CONTROL (713A1)	LNS087	44	2 CPF
088	TAIL POSITION - BRIGHT	MASTER LITE CONTROL (713A1)	LNS088	44	2 CPF
089	TAIL POSITION - DIM	MASTER LITE CONTROL (713A1)	LNS089	44	2 CPF
090	WING POSITION - BRIGHT	MASTER LITE CONTROL (713A1)	LNS090	44	2 CPF
091	WING POSITION - DIM	MASTER LITE CONTROL (713A1)	LNS091	44	2 CPF
092	WING SWEEP - > 25°	SWITCH ACTUATOR TRANSMITTER (63S3)	CKS092	44	0.1 CPS
093	FORMATION LITES - ON	MASTER LITE CONTROL (713A1)	LFS093	44	2 CPF
094	GYROS/WSHLD HTR - ON	SYS. TEST & SYS. PWR PNL (790A1)	HJS094	33	4 CPF
095	WINDSHIELD DEFOG - MAX	WINDSHIELD DEFOG PNL (40A3)	HJS095	33	2 CPF
096	WINDSHIELD DEFOG - NORM	WINDSHIELD DEFOG PNL (40A3)	HJS096	33	2 CPF

TABLE A-4. TRANSDUCERS (SHEET 4 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
097	WSHLD OVERHEAT SENSOR - HOT	WSHLD OVERHEAT SENSOR (40S1)	HAS097	33	0.1 CPS
098	RAIN REPEL - ON	EXT. ENVIRONMENT CONTROL PANEL (792A1)	HJS098	33	2 CPF
099	AIR - ON	EXT. ENVIRONMENT CONTROL PANEL (792A1)	HJS099	33	2 CPF
100	ALARM LITE OUTPUT - ON	WINDSHIELD POWER CONTROL (40A1)	LTS100	33	2 CPF
101	LIQ COOLING AWG9/AIM54 - ON	LIQUID COOLING CONTROL PANEL (61A1)	HNS101	34	2 CPF
102	RIGHT MLG WOW	RIGHT MLG SAFETY SWITCH (48S2)	GDS102	1	1 CPF
103	LIQ COOLING AWG-9 - ON	LIQUID COOLING CONTROL PANEL (61A1)	HNS103	34	2 CPF
104	FAIRING INTERLOCK SWITCH - CLOSED	FAIRING INTERLOCK SWITCH (61S3)	HNS104	34	2 CPF
105	PRESSURE - > 2000 ± 50 PSI	SPOILER/HIGH LIFT BACKUP MODULE (53B1)	DHS105	37	0.1 CPS
106	SPOILERS - ON	SPOILERS - SYSTEM TEST - SYSTEM PWR PANEL (790A1)	CGS106	37	2 CPF
107	EXTERNAL ELEC. PWR - ON	AC PWR CONTACTOR ASSEMBLY (66A3K3)	XAS107	37	1 CPF
108	TEMP SWITCH > 275° ± 15°	SPOILER/HIGH LIFT BACKUP MODULE (53B1)	EMS108	37	0.1 CPS
109	RIGHT ENG. OIL TEMP > 250°F	RIGHT ENG. OIL TEMP. SWITCH (70A4)	EMS109	38	0.1 CPS
110	L. ENGINE MACH SWITCH ≥ 2.1 MACH	LEFT ENGINE MACH SWITCH	KCS110	39	0.1 CPS
111	L. ENGINE PLA SWITCH - IDLE	LEFT ENGINE PLA SWITCH	KCS111	39	0.1 CPS
112	L. NOT STOWED > 0.9 MACH	DIFFUSER RAMP OUT OF STOW SWITCH (32S4)	KCS112	39	10 CPF
113	L. THROTTLE < 31°	THROTTLE QUADRANT (711A1)	QKS113	39	0.1 CPS
114	L. BLEED EXIT DOOR COMMAND - ON	LEFT AIR INLET CONTROL PROGRAMMER (32A6)	KCS114	39	0.1 CPS
115	RUDDER LEFT DEFLECTION - > 10°	MCB RUDDER SWITCH (80S1)	CJS115	39	0.1 CPS
116	RUDDER FIGHT DEFLECTION - > 10°	MCB RUDDER SWITCH (80S2)	CJS116	39	0.1 CPS
117	RIGHT THROTTLE - < 31°	THROTTLE QUADRANT (711A1)	QKS117	39	0.1 CPS
118	RIGHT NOT STOWED > 0.9 MACH	DIFFUSER RAMP OUT STOW SWITCH (32S8)	KCS118	39	0.1 CPS
119	R. BLEED EXIT DOOR COMMAND -	RIGHT AIR INLET CONTROL PROGRAMMER (32A7)	KCS119	39	0.1 CPS
120	INFLIGHT REFUELING PROBE DOOR - OPEN	INFLIGHT REFUEL PROBE DOOR SWITCH (62S1)	QFS120	39	0.1 CPS
121	AOA ≥ 17 UNITS, (> 12° AOA)	AOA INDICATOR (45A2)	FDG121	39	0.1 CPS
122	RIGHT ENGINE MACH SWITCH - ≥ 2.1 MACH	RIGHT ENGINE MACH SWITCH	KCS122	39	0.1 CPS
123	RIGHT ENGINE PLA SWITCH - IDLE	RIGHT ENGINE PLA SWITCH	KCS123	39	0.1 CPS
124	AIR SOURCE - RAM SELECTED	AIR CONDITION CONTROL PANEL (42A1)	HNS124	32	2 CPF
125	RAM AIR - INCR	RAM AIR S2 SWITCH P/O (42A1)	HQS125	32	2 CPF
126	RAM AIR - DECR	RAMAIR S2 SWITCH P/O (42A1)	HQS126	32	2 CPF
127	GND CLG - OBC/CABIN	TEST PANEL (720A1)	HNS127	32	2 CPF
128	GND CLG - AWG9/AIM54	TEST PANEL (720A1)	HNS128	32	2 CPF

TABLE A-4. TRANSDUCERS (SHEET 5 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
129	> 30000 ± 2000 FT	ANEROID ALTITUDE SWITCH -AIRCRAFT AIR TEMP. ELECTRIC CONTROL (42A8)	HCS129	32	20 CPF
130	< 0.4 MACH SIGNAL	AIR DATA COMPUTER (05A1)	FLS130	32	0.1 CPS
131	LEFT ENGINE - CRANK	ENGINE CONTROL PANEL (710A1)	KKS131	40	2 CPF
132	RIGHT ENGINE - CRANK	ENGINE CONTROL PANEL (710A1)	KKS132	40	2 CPF
133	L. ENGINE - AUTO RESTART SWITCH - CLOSED	LEFT ENGINE COMPRESSOR DISCHARGE SWITCH PS4	KKS133	40	2 CPF
134	R. ENG. AUTO RESTART SWITCH - CLOSED	RIGHT ENGINE COMPRESSOR DISCHARGE SWITCH PS4	KKS134	40	2 CPF
135	L. ENG. CUTOFF SWITCH - CLOSED	LEFT ENGINE	KKS135	40	2 CPF
136	R. ENG. CUTOFF SWITCH - CLOSED	RIGHT ENGINE	KKS136	40	2 CPF
137	AIR SOURCE - OFF	AIR CONDITION CONTROL PANEL (42A1)	HNS137	32	2 CPF
138	AIR SOURCE - L. ENGINE	AIR CONDITION CONTROL PANEL (42A1)	HNS138	32	2 CPF
139	LEFT THROTTLE START CROSS BL - < 40°	THROTTLE QUADRANT (711A1)	KAS139	32	0.1 CPS
140	RIGHT THROTTLE START CROSS BL - < 40°	THROTTLE QUADRANT (711A1)	KAS140	32	0.1 CPS
141	LEFT ENGINE BL AIR VALVE SWITCH - CUTOFF	THROTTLE QUADRANT (711A1)	KAS141	32	0.1 CPS
142	RIGHT ENGINE BL AIR VALVE SWITCH - CUTOFF	THROTTLE QUADRANT (711A1)	KAS142	32	0.1 CPS
143	AIR SOURCE - R. ENGINE	AIR CONDITION CONTROL PANEL (42A1)	HNS143	32	2 CPF
144	BLEED DUCT OVERPRESSURE - HIGH	BLEED DUCT OVERPRESSURE SWITCH (42S4)	HQS144	32	2 CPF
145	TEMP - AUTO	AIR CONDITION CONTROL PANEL (42A1)	HNS145	32	2 CPF
146	OVERTEMPERATURE - 550°F	OVERTEMPERATURE SWITCH (550°F) (42S2)	HNS146	32	2 CPF
147	OVERTEMPERATURE - 475°F	OVERTEMPERATURE SWITCH (475°F) (42S1)	HNS147	32	2 CPF
148	< 0.25 MACH SIGNAL	AIF DATA COMPUTER (05A1)	FLS148	32	0.1 CPS
149	CABIN PRESS - CUMP	AIR CONDITION CONTROL PANEL (42A1)	HPS149	32	2 CPF
150	CABIN - LOW PRESSURE	CABIN LOW PRESSURE SWITCH (42S3)	HPS150	32	2 CPF
151	LEFT ENGINE OIL - HOT	LEFT ENGINE	EMS151	32, NAVAIR-2-2-6	2 CPF
152	CAUTION LAMP DRIVE - ON	BLEED AIR LEAK DETECTOR CONTROL UNIT (70A8)	HNS152	32	2 CPF
153	BLEED AIR - SELECTED	SYS TST & SYS PWR PANEL (790A1)	HQS153	32	2 CPF
154	AIR START - ON	EXT. ENVIRONMENT/THROTTLE CONTROL PANEL (710A1)	KKS154	40	2 CPF
155	RIGHT IGNITION SWITCH - > 3°	THROTTLE QUADRANT (711A1)	KKS155	40	0.1 CPS
156	LEFT IGNITION SWITCH - > 3°	THROTTLE QUADRANT (711A1)	KKS156	40	0.1 CPS
157	RIGHT OVSP	ENG. ROTOR OVERSPEED DETECTOR (34MG1)	EUS157	38	2 CPF
158	LEFT OVSP	ENG. ROTOR OVERSPEED DETECTOR (34MG1)	EUS158	38	2 CPF
159	R. ENG. VALVE - OPEN	R. ENG. PRESSURE REGULATOR VALVE - POSITION SWITCH	EQS159	40	2 CPF
160	L. ENG. VALVE - OPEN	L. ENG. PRESSURE REGULATOR VALVE - POSITION SWITCH	EQS160	40	2 CPF
161	R. ENG. IDLE EXHAUST NOZZLE SOLENOID SWITCH-CLOSED (IDLE)	R. ENG. FUEL PUMP	EJS161	40, NAVAIR 2-2-6	0.1 CPS
162	L. ENG. IDLE EXHAUST NOZZLE SOLENOID SWITCH-CLOSED (IDLE)	L. ENG. FUEL PUMP	EJS162	40, NAVAIR 2-2-6	0.1 CPS

TABLE A-4. TRANSDUCERS (SHEET 6 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
163	COMBINED SYS. PRESSURE - > 450 PSI	COMBINED SYS PRESSURE MODULE (47A2)	EPS163	35	2 CPF
164	SPEED BRAKE - RETRACTED	SPEED BRAKE SWITCH (78S1) P/O SPEED BRAKE CONTROL SYSTEM	CDS164	42	2 CPF
165	DUMP - ON	FUEL MANAGEMENT PANEL (707A1)	QAS165	42	1 CPF
166	FUEL FEED - AFT	FUEL MANAGEMENT PANEL (707A1)	QAS166	42	2 CPF
167	FUEL FEED - FWD	FUEL MANAGEMENT PANEL (707A1)	QAS167	42	2 CPF
168	FUEL CELL 2 OR 5 - DRY	ELECTRONIC CONTROL AMPLIFIER (33A18)	EJS168	42	2 CPF
169	RIGHT FUEL PRESSURE SWITCH - CLOSED	RIGHT FUEL PRESSURE SWITCH (62S4)	ERS169	42	2 CPF
170	LEFT FUEL PRESSURE SWITCH - CLOSED	LEFT FUEL PRESSURE SWITCH (62S3)	ERS170	42	2 CPF
171	WING/EXT TRANS - OFF	WING EXTERNAL TRANSFER SWITCH S3, P/O FUEL MANAGEMENT PANEL (707A1)	QES171	42	2 CPF
172	REFUEL PROBE - FUS/EXTD	FUEL MANAGEMENT PANEL (707A1) SWITCH S4	QES172	42	2 CPF
173	REFUEL PROBE - ALL/EXTD	FUEL MANAGEMENT PANEL (707A1) SWITCH S4	QES173	42	2 CPF
174	MASTER TEST - FLT GR UP	MASTER TEST PANEL (734A1)	DUS174	42	2 CPF
175	RIGHT FUEL LOW CAUTION ADVISORY	R. ELECTRONIC CONTROL AMPLIFIER (33A2)	EJS175	42	2 CPF
176	LEFT FUEL LOW CAUTION ADVISORY	L. ELECTRONIC CONTROL AMPLIFIER (33A4)	EJS176	42	2 CPF
177	BINGO	PILOT FUEL QUANTITY INDICATOR (33M1)	EJS177	42	2 CPF
178	QUANTITY SELECT - EXT	QUANTITY SELECT SWITCH S5, P/O FUEL MANAGEMENT PANEL (707A1)	EJS178	42	2 CPF
179	QUANTITY SELECT - WING	QUANTITY SELECT SWITCH S5, P/O FUEL MANAGEMENT PANEL (707A1)	EJS179	42	2 CPF
180	EXTERNAL AC POWER - ON LINE	AC EXTERNAL POWER CONTACTOR (66A6K3)	XAS180	35	1 CPF
181	FLIGHT SYSTEM PRESS - > 450 PSI	FLIGHT SYSTEM PRESSURE MODULE (47A1)	EPS181	35	2 CPF
182	TRANSFER PUMP - ON	SYSTEM TEST AND SYSTEM POWER PANEL (790A1)	QGS182	35	10 CPF
183	HYD TRANSFER PUMP - NORMAL	HYDRAULIC TRANSFER PUMP PANEL (47A3)	QGS183	35	10 CPF
184	BACKUP MODULE TEMP SWITCH - CLOSED (< 180°F)	FLIGHT CONTROL BACKUP MODULE (63B2)	QGS184	35	2 CPF
185	AUX HYD CONT - ON	SYS. TEST AND SYS POWER PANEL (790A1)	QGS185	35	2 CPF
186	EMERG FLT HYD - HI	MASTER TEST PANEL (734A1)	QGS186	35	1 CPF
187	BACKUP MODULE PRESSURE - CLOSED (> 500 PSI)	FLIGHT CONTROL BACKUP MODULE (63B2)	QGS187	35	10 CPF
188	WING/EXT TRANS - ORIDE	WING EXTERNAL TRANSFER SW - S3 (P/O FUEL MANAGEMENT PANEL (707A1)	QAS188	42	2 CPF
189	WING/EXT TRANS - AUTO	WING EXTERNAL TRANSFER SW - S3 (P/O FUEL MANAGEMENT PANEL (707A1)	QAS189	42	2 CPF
190	L AND R WING LOW LEVEL SENSORS - WET	ELECTRONIC CONTROL AMPLIFIER (62A10)	EJS190	42	2 CPF
191	NOSE STRUT - EXTD	NOSE STRUT SWITCH (74S1) P/O LANDING GEAR CONTROL PANEL	GAS191	30	2 CPF
192	NOSE STRUT - KNEEL	NOSE STRUT SWITCH (74S2) P/O LANDING GEAR CONTROL PANEL	GAS192	30	2 CPF
193	LAUNCH BAR - EXTENDED	P/O LAUNCH BAR PROXIMITY SWITCH (74S2)	GAS193	30	2 CPF
194	LEFT THROTTLE - < MIL PWR	THROTTLE QUADRANT (711A1)	QKS194	30	0.1 CPS
195	RIGHT THROTTLE - < MIL PWR	THROTTLE QUADRANT (711A1)	QKS195	30	0.1 CPS

TABLE A-4. TRANSDUCERS (SHEET 7 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
196	LAUNCH BAR - ABORT	LAUNCH BAR PANEL (74A1)	GAS196	30	2 CPF
197	HOOK - STOWED	ARRESTING HOOK NOT STOWED SWITCH (49S1)	GGS197	30	2 CPF
198	ANTI-SKID/SPOILER BK - BOTH	ANTI-SKID/SPOILER BK SWITCH-(56) P/O FUEL MANAGEMENT PANEL (707A1)	CKS198	30	2 CPF
199	AUTO PILOT ENGAGE NOSE WHEEL STEERING PUSHBUTTON SWITCH - ON	CONTROL STICK GRIP (20A4)	GHS199	30	2 CPF
200	LEFT THROTTLE - IDLE	THROTTLE QUADRANT (711A1)	QKS200	30	0.1 CPS
201	RIGHT THROTTLE - IDLE	THROTTLE QUADRANT (711A1)	QKS201	30	0.1 CPS
202	NLG DOOR - UP AND LOCKED	NLG DOOR UP AND LOCKED SWITCH (75S2)	GJS202	30	2 CPF
203	LEFT MLG - DOWN AND LOCKED	LEFT MLG DOWN AND LOCKED SWITCH (75S4)	GDS203	30	2 CPF
204	LEFT MLG DOOR - UP AND LOCKED	LEFT MLG DOOR LOCKED/UNLOCKED SWITCH (75S7)	GJS204	30	2 CPF
205	LEFT MLG POSITION - UP AND LOCKED	LEFT MLG POSITION SWITCH (75S13)	GJS205	30	2 CPF
206	RIGHT MLG - DOWN AND LOCKED	RIGHT MLG DOWN AND LOCKED SWITCH (75S9)	GDS206	30	2 CPF
207	RIGHT MLG DOOR - UP AND LOCKED	RIGHT MLG DOOR LOCKED/UNLOCKED SWITCH (75S6)	GJS207	30	2 CPF
208	RIGHT MLG POSITION - UP AND LOCKED	RIGHT MLG DOOR POSITION SWITCH (75S14)	GJS208	30	2 CPF
209	LEFT BRAKE PRESSURE - > 400 PSI	P/O LEFT BRAKE PRESSURE SWITCH (47S1)	GCS209	30	2 CPF
210	RIGHT BRAKE PRESSURE - > 400 PSI	P/O RIGHT BRAKE PRESSURE SWITCH (47S2)	GCS210	30	2 CPF
211	SKID CONTROL - PWR LOSS	SKID CONTROL BOX (82A1)	GCS211	30	2 CPF
212	LIGHT TEST - ACTIVE	PILOT CAUTION ADVISORY INDICATOR	MJS212	30	2 CPF
213	LEFT MLG - RETRACTED	LEFT BRACE PROXIMITY SWITCH (75S11)	GBS213	30	2 CPF
214	RIGHT MLG - RETRACTED	RIGHT BRACE PROXIMITY SWITCH (75S12)	GBS214	30	2 CPF
215	FLAP LEVER - > 10°	FLAP LEVER P/O THROTTLE QUADRANT (711A1)	CGS215	30	10 CPF
216	WING SWEEP - < 57°	P/O WING POSITION SWITCH (51A5)	GES216	1	0.1 CPS
217	LEFT FLAP - ≥ 25°	LEFT FLAP POSITION SWITCH (20S2)	CGS217	1	10 CPF
218	RIGHT FLAP - ≥ 25°	RIGHT FLAP POSITION SWITCH (20S1)	CGS218	1	10 CPF
219	DLC ENGAGE CHAFF DISPENSE - ON	DLC ENGAGE CHAFF DISPENSE PUSHBUTTON SWITCH P/O CONTROL STICK (20A4)	TMS219	1	2 CPF
220	LEFT TRIM	P/O CONTROL STICK (20A4) - HAND GRIP (20A4A2) TRIM SWITCH	CFS220	1	2 CPF
221	RIGHT TRIM	P/O CONTROL STICK (20A4) - HAND GRIP (20A4A2) TRIM SWITCH	CFS221	1	2 CPF
222	MASTER RESET - DEPRESSED	FUEL MANAGEMENT (707A1) MASTER RESET PUSHBUTTON	UCS222	1	2 CPF
223	ANTI-SKID/SPOILER BK - SPOILER BK	FUEL MANAGEMENT (707A1) ANTI SKID/SPOILER BK SWITCH	CDS223	1	2 CPF
224	NO. 4 RIGHT SPOILER - > 0°	NO. 4 RIGHT SPOILER ACTUATOR (20A31)	CGS224	1	0.1 CPS
225	NO. 3 RIGHT SPOILER - > 0°	NO. 3 RIGHT SPOILER ACTUATOR (20A30)	CGS225	1	0.1 CPS
226	NO. 2 RIGHT SPOILER - > 0°	NO. 2 RIGHT SPOILER ACTUATOR (20A29)	CGS226	1	0.1 CPS
227	NO. 1 RIGHT SPOILER - > 0°	NO. 1 RIGHT SPOILER ACTUATOR (20A28)	CGS227	1	0.1 CPS
228	NO. 2 LEFT SPOILER - < 18°	NO. 2 LEFT SPOILER ACTUATOR (20A25)	CGS228	1	0.1 CPS

TABLE A-4. TRANSDUCERS (SHEET 8 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG.	RATE
229	NO. 1 LEFT SPOILER - < 18°	NO. 1 LEFT SPOILER ACTUATOR (20A24)	CGS229	1	0.1 CPS
230	NO. 2 RIGHT SPOILER - < 18°	NO. 2 RIGHT SPOILER ACTUATOR (20A29)	CGS230	1	0.1 CPS
231	NO. 1 RIGHT SPOILER - < 18°	NO. 1 RIGHT SPOILER ACTUATOR (20A28)	CGS231	1	0.1 CPS
232	LEFT STICK/NORMAL	ROLL SWITCH ASSEMBLY (20A32)	CGS232	1	0.1 CPS
233	RIGHT STICK/NORMAL	ROLL SWITCH ASSEMBLY (20A32)	CGS233	1	9.1 CPS
234	STICK SW	MASTER TEST PANEL (734A1)	CGS234	1	1 CPF
235	NO. 3 LEFT SPOILER - < 18°	NO. 3 LEFT SPOILER ACTUATOR (20A26)	CGS235	1	0.1 CPS
236	NO. 4 LEFT SPOILER - < 18°	NO. 4 LEFT SPOILER ACTUATOR (20A27)	CGS236	1	0.1 CPS
237	NO. 3 RIGHT SPOILER - < 18°	NO. 3 RIGHT SPOILER ACTUATOR (20A30)	CGS237	1	0.1 CPS
238	NO. 4 RIGHT SPOILER - < 18°	NO. 4 RIGHT SPOILER ACTUATOR (20A31)	CGS238	1	0.1 CPS
239	NO. 2 LEFT SPOILER - > 0°	NO. 2 LEFT SPOILER ACTUATOR (20A25)	CGS239	1	0.1 CPS
240	NO. 1 LEFT SPOILER - > 0°	NO. 1 LEFT SPOILER ACTUATOR (20A24)	CGS240	1	0.1 CPS
241	NO. 2 LEFT SPOILER - (-4.5°)	NO. 2 LEFT SPOILER ACTUATOR (20A25)	CGS241	1	0.1 CPS
242	NO. 1 LEFT SPOILER - (-4.5°)	NO. 1 LEFT SPOILER ACTUATOR (20A24)	CGS242	1	0.1 CPS
243	NO. 1 RIGHT SPOILER - (-4.5°)	NO. 1 RIGHT SPOILER ACTUATOR (20A28)	CGS243	1	0.1 CPS
244	NO. 2 RIGHT SPOILER (-4.5°)	NO. 2 RIGHT SPOILER ACTUATOR (20A29)	CGS244	1	0.1 CPS
245	NO. 3 LEFT SPOILER - > 0°	NO. 3 LEFT SPOILER ACTUATOR (20A26)	CGS245	1	0.1 CPS
246	NO. 4 LEFT SPOILER - > 0°	NO. 4 LEFT SPOILER ACTUATOR (20A27)	CGS246	1	0.1 CPS
247	NO. 3 LEFT SPOILER - (-45°)	NO. 3 LEFT SPOILER ACTUATOR (20A26)	CGS247	1	0.1 CPS
248	NO. 4 LEFT SPOILER - (-4.5°)	NO. 4 LEFT SPOILER ACTUATOR (20A27)	CGS248	1	0.1 CPS
249	NO. 3 RIGHT SPOILER-(-4.5°)	NO. 3 RIGHT SPOILER ACTUATOR (20A30)	CGS249	1	0.1 CPS
250	NO. 4 RIGHT SPOILER - (-4.5°)	NO. 4 RIGHT SPOILER ACTUATOR (20A31)	CGS250	1	0.1 CPS
251	TARGET DESIGNATE - UP	TARGET DESIGNATE SWITCH (85S1)	AAS251	17	10 CPF
252	TARGET DESIGNATE - DES	TARGET DESIGNATE SWITCH (85S1)	AAS252	17	10 CPF
253	TARGET DESIGNATE - DN	TARGET DESIGNATE SWITCH (85S1)	AAS253	17	10 CPF
254	CAGE - SEAM	THROTTLE QUADRANT (711A1)	ADS254	18	10 CPF
255	WEAPON SELECTOR - GUN	CONTROL STICK (20A4) HANDGRIP (20A4A2)	ADS255	18	2 CPF
256	WEAPON TRIGGER - DEPRESSED	CONTROL STICK (20A4) HAND GRIP (20A4A2)	ADS256	18	20 CPF
257	STATION 1A SIDEWINDER -PWR INTLK (28VDC RTN)	STATION 1A OUTBOARD SIDEWINDER	AGS257	19	2 CPF
258	STATION 1B SIDEWINDER - PWR INTLK (28VDC RTN)	STATION 1B INBOARD SIDEWINDER	AGS258	19	2 CPF
259	STATION 8A SIDEWINDER - PWR INTLK (28VDC RTN)	STATION 8A OUTBOARD SIDEWINDER	AGS259	19	2 CPF
260	STATION 8B SIDEWINDER - PWR INTLK (28VDC RTN)	STATION 8B OUTBOARD SIDEWINDER	AGS260	19	2 CPF

TABLE A-4. TRANSDUCERS (SHEET 9 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG	RATE
261	STA 4F AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS261	20	2 CPF
262	STA 5F AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS262	20	2 CPF
263	STA 3F AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS263	20	2 CPF
264	STA 6F AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS264	20	2 CPF
265	STA 1B AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS265	20	2 CPF
266	STA 8B AIM-7 PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS266	20	2 CPF
267	MSL AUX PWR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS267	20	2 CPF
268	AIM 54 HTR PWR - ON	WEAPON CONTROL SYSTEM AN/AWG9 and AIM 54 LIQUID COOLING SYSTEM	AGS268	20	0.1 CPS
269	STA 1B AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS269	20	2 CPF
270	STA 3F AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS270	20	2 CPF
271	STA 4F AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS271	20	2 CPF
272	STA 5F AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3)(720)	AGS272	20	2 CPF
273	STA 6F AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3) (720)	AGS273	20	2 CPF
274	STA 8B AIM-7 BATTERY - ARM AND HYDR - ENABLE	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3) (720)	AGS274	20	2 CPF
275	AIM-7 MOTOR FIRE - SEL	ARMAMENT PANEL (85A1)	AGS275	20	2 CPF
276	DATA LINK ANTENNA - SELECT	DATA LINK SYSTEM	RUS276	27	
277	INST - ON	SYS TEST - SYS PWR PANEL (790A1)	YAS277	43	
278	CMD SPD - RETURN	DATA LINK SYSTEM	FLS278	15	
279	WEAPON SELECTOR - SW	CONTROL STICK (20A4) HAND GRIP (20A4A2)	YAS279	19	
280	MSL STEPPING SW - DEPRESSED	CONTROL STICK (20A4) HAND GRIP (20A4A2)	YAS280	19	
281	WEAPON SELECTOR SW - PH SP	CONTROL STICK (20A4) HAND GRIP (20A4A2)	YAS281	20	
282	MODE 1 - ENABLE	IFF CONTROL PANEL (09A1)	SXS282	10	
283	MANUAL IFF EMERGENCY - ENABLE	IFF CONTROL PANEL (09A1)	SXS283	10	
284	MODE 2 - ENABLE	IFF CONTROL PANEL (09A1)	SXS284	10	
285	MODE 3A - ENABLE	IFF CONTROL PANEL (09A1)	SXS285	10	
286	SENSITIVITY CONTROL - NORMAL	IFF CONTROL PANEL (09A1)	SXS286	10	
287	STANDBY CONTROL - OPERATING	IFF CONTROL PANEL (09A1)	SXS287	10	
288	PWR RELAY CONTROL - ENABLE	IFF CONTROL PANEL (09A1)	SXS288	10	

TABLE A-4. TRANSDUCERS (SHEET 10 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG.
500	INSTRUMENT LITING R1 - ON	D/L REPLY - INTRA LIGHT CONTR PANEL (724A1)	LHS500	45
501	WHITE FLOOD-DIM	D/L REPLY - INTRA LIGHT CONTR PANEL (724A1)	LHS501	45
502	WHITE FLOOD-BRT	D/L REPLY - INTRA LIGHT CONTR PANEL (724A1)	LHS502	45
503	CONSOLE LITING - ON	D/L REPLY - INTRA LIGHT CONTR PANEL (724A1)	LHS503	45
504	ACM - ON	MASTER LIGHT CONTROL PANEL (713A1)	LHS504	45
505	INSTRUMENT R3 - ON	MASTER LIGHT CONTROL PANEL (713A1)	LHS505	45
506	WHITE FLOOD - $\overline{\text{OFF}}$	MASTER LIGHT CONTROL PANEL (713A1)	LHS506	45
507	CONSOLE R4 - ON	MASTER LIGHT CONTROL PANEL (713A1)	LHS507	45
508	ACM R1 - OFF	MASTER LIGHT CONTROL PANEL (713A1)	LHS508	45
509	LEFT AUX FLAP - EXTEND	LEFT AUX FLAP EXTEND SW (51S3)	CKS509	29
510	RIGHT AUX FLAP - EXTEND	RIGHT AUX FLAP EXTEND SW (51S4)	CKS510	29
511	RIGHT INBOARD MANEUVER FLAP - EXTEND	RIGHT INBOARD MANEUVER FLAP SW (51S2)	CKS511	29
512	LEFT INBOARD MANEUVER FLAP - EXTEND	LEFT INBOARD MANEUVER FLAP SW (51S1)	CKS512	29
513	WING POS - > 21°	WING POS SW (51A5)	CKS513	29
514	WING POS - > 50°	WING POS SW (51A5)	CKS514	29
515	MASTER RESET - DEPRESSED	FUEL MANAGEMENT PANEL (707A1)	CKS515	29
516	WG SWP	MASTER TEST PANEL (734A1)	MJS516	29
517	ADC ALTITUDE - RELIABLE	AADC (05A1)	PKS517	29
518	IND LT - ON	S2 TEST PANEL (720A1)	DUS518	46
519	R AUTO/STOW - STOW	INLET RAMPS/ENG CRANK (710A1)	KAS519	46
520	L AUTO/STOW - STOW	INLET RAMPS/ENG CRANK (710A1)	KAS520	46
521	FIRST R COMP SW - NOT STOW	FIRST R COMP. RAMP SW (32S6)	KCS521	46
522	SECOND R COMP SW - NOT STOW	SECOND R COMP. RAMP SW (32S7)	KCS522	46
523	FIRST R TRAIL - NOT TRAIL	FIRST R TRAIL SW (32S5)	KCS523	46
524	FIRST L COMP SW - NOT STOW	FIRST L COMP RAMP SW (32S2)	KCS524	46
525	SECOND L COMP SW - NOT STOW	SECOND L COMP RAMP SW (32S3)	KCS525	46
526	FIRST L TRAIL - NOT TRAIL	FIRST L COMP TRAIL SW (32S1)	KCS526	46
527	WING SWP DETENT - ENGAGED	DETENT POS SW (50A2)	CKS527	46
528	L WING SEAL DUMP VALVE - OPEN	L WING SEAL DUMP VALVE (50L3)	QAS528	46
529	R WING SEAL DUMP VALVE - OPEN	R WING SEAL DUMP VALVE (50L2)	QAS 529	46
530	R GEN CONTROL - NORM	R(S2) MASTER GEN PNL (716A1)	POS530	46
531	R GEN CONTROL - TEST	R(S2) MSDYRT HRN PNL (716A1)	POS531	46
532	R GEN CONTROL PWR - ON	R VOLTAGE REG CONT (66A2)	POS532	46

TABLE A-4. TRANSDUCERS (SHEET 11 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG.
533	L GEN CONTROL - NORM	L(S1) MASTER GEN PNL (716A1)	POS533	46
534	L GEN CONTROL - TEST	L(S1) MASTER GEN PNL (716A1)	POS534	46
535	L GEN CONTROL PWR - ON	L VOLTAGE REG CONT (66A1)	POS535	46
536	R RECTIFIER PWR - ON	R VOLTAGE REG CONT (66A2)	POS536	46
537	L RECTIFIER PWR - ON	L VOLTAGE REG CONT (66A1)	POS537	46
538	R DC PWR - ON	R XFMR - RECT (67TR2)	PAS538	46
539	L DC PWR - ON	L XFMR - RECT (67TR1)	PAS539	46
540	L ENGINE OIL PRESSURE - LOW	L ENG. OIL PRESSURE SW (70A2)	EPS540	46
541	R ENGINE OIL PRESSURE - LOW	R ENG. OIL PRESSURE SW (70A2)	EPS541	46
543	ICE PROBE - ON	ICE-DETECTOR (39A1)	HAS543	46
544	CANOPY SW - OPEN	CANOPY SW (70S1)	DUS544	46
545	PILOT OXY PR - LOW	PILOT OXY PRESS. WARNING SW (41S1)	WHS545	46
546	NFO OXY PR - LOW	NFO OXY PRESS WARNING SW (41S2)	WHS546	46
547	BOARDING LADDER - DN	BOARDING LADDER	DUS547	46
548	COOLING AIR = OVERHEAT	COOLING EFFECT CONTROLLER	HNS548	46
549	RADAR TEST EN - RADIATE & SCAN	RADAR TEST EN CONTR PNL (27A37)	SVS549	46
550	BLEED MANIFOLD SW - > 475°F	BLEED MANIFOLD 475° OVERTEMP SWITCH (42A7)	HCS550	43
551	WSHLD HEAT - ON	SYSTEM TEST PANEL (790A1)	HCS551	43
552	FIRE SHORT - ON	SYSTEM TEST PANEL (790A1)	FPS552	43
553	BLANK PULSE - ON	SYSTEM TEST PANEL (790A1)	SNS553	43
554	FIRE DET - ON	MASTER TEST PANEL (734A1)	WGS554	43
555	L. ALARM LAMP - ON	LEFT ALARM CONTROL (71A2)	WGS555	43
556	R. ALARM LAMP - ON	RIGHT ALARM CONTROL (71A1)	WGS556	43
557	SPD BRAKES - HOLD	THROTTLE QUADRANT (711A1)	NAS557	43
558	SPD BRAKES - EXT	THROTTLE QUADRANT (711A1)	NAS558	43
559	LWR SPD BRAKE - IN	LOWER SPEED BRAKE POSITION SWITCH (78S1)	NAS559	43
560	UPPER SPD BRAKE - OTHER	UPPER SPEED BRAKE POSITION SWITCH (78S2)	NAS560	43
561	MASTER TEST - INST	MASTER TEST PANEL (734A1)	DUS561	43
562	NO. 1/NO. 2 - AC/DC RELAYS - ENERGIZED	AC PWR SWITCH ASSEMB (67A2), DC PWR SWITCH ASSEMB (67A3)	MJS562	43
563	OBC	MASTER TEST PANEL (734A1)	MJS563	43
564	EMERG GEN	MASTER TEST PANEL (734A1)	MJS564	43
565	MACH LEV	MASTER TEST PANEL (734A1)	MJS565	43
566	WG SWP	MASTER TEST PANEL (734A1)	MJS566	43
567	TEST INITIATE - ON	ADC (05A1)	MJS567	43

TABLE A-4. TRANSDUCERS (SHEET 12 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG.
568	NFO SEAT HEIGHT - UP	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	WFS568	43
569	NFO SEAT HEIGHT - DOWN	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	WFS569	43
570	PILOT SEAT HEIGHT - UP	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	WFS570	43
571	PILOT SEAT HEIGHT - DOWN	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	WFS571	43
572	EJECT MODE SELECTOR - PILOT	EJECT MODE SELECTOR SWITCH (70S3)	WFS572	43
573	FIRE SHORT - SELECTED	SYS. TEST - SYS PWR PANEL (790A1)	WGS573	43
574	FAULT SIGNAL - LEFT	MACH LEVER CONTROL UNIT (46A1)	DUS574	43
575	FAULT SIGNAL - RIGHT	MACH LEVER CONTROL UNIT (46A1)	DUS575	43
576	GO SIGNAL	MACH LEVER CONTROL UNIT (46A1)	DUS576	43
577	AIR PRESS ≥ 10.5 PSIG	AUX FUEL TANK AIR PRESSURE SWITCH (62S5)	DES577	43
578	AIR PRESS < 6.5 PSIG	AUX FUEL TANK AIR PRESSURE SWITCH (62S5)	DES578	43
579	R-AICS HYDR - ON	RIGHT AIR INLET CONTROL PROGRAMMER (32A7)	DHS579	46
580	L-AICS HYDR - ON	LEFT AIR INLET CONTROL PROGRAMMER (32A7)	DHS580	46
581	L-AICS - 28VDC	LEFT AIR INLET CONTROL PROGRAMMER (32A7)	DHS581	46

TABLE A-4. TRANSDUCERS (SHEET 13 OF 13)

ITEM	SIGNAL NAME/FUNCTION	SIGNAL SOURCE	IDENT	FIG.
700	LEFT - TOOL IN	LEFT LOAD SAFETY SWITCH (25S3)	TES700	1A
701	RIGHT - TOOL IN	RIGHT LOAD SAFETY SWITCH (25S4)	TES701	1A
702	ALE-29 - SELECTED	SYS TEST/SYS PWR PANEL (790A1)	TES702	1A
703	ALQ-100 - NO GO	ALQ-100 RECEIVER - TRANSMITTER (23A3)	TES703	1A
704	STANDBY - INDICATION	ALQ-100 RECEIVER-TRANSMITTER (23A3	TES704	1A
705	LAMP TEST - GND	NOF CAUTION ADVISORY INDICATOR (69A2A1	TES705	1A
706	MISSILE - ALERT/LAUNCH	APR27 RECEIVER (22A6)	TES706	1A
707	PILOT DISPENSE COMMAND - ENABLE	CHAFF/FLARE DISPENSE PANEL (25A2)	TES707	1A
708	REPEAT MODE - SELECT	ALQ-100 RECEIVER-TRANSMITTER (23A3)	TES708	1A
709	NFO ASW27 - ON	NFO MAIN-DATA LINK CONTROL PANEL (15A2)	RPS709	3A
710	PILOT ASW27 - ON	PILOT MAIN-DATA LINK CONTROL PANEL (15A1)	RPS710	3A
711	PILOT - FORCED REPLY	PILOT MAIN-DATA LINK CONTROL PANEL *15A1)	RPS711	3A
712	NFO - FORCED REPLY	NFO MAIN-DATA LINK CONTROL PANEL (15A2)	RPS712	3A
713	CAINS - ALIGN	CSDS (07A1)	RPS713	3A
714	D/L RAD - SELECTED	MASTER TEST PANEL (734A1)	RPS714	3A
715	ASW27 - SELECTED	SYS TEST - SYS PWR PANEL (790A1)	RPS715	3A
716	PILOT - CANCEL REPLY	PILOT MAIN DATA LINK CONTROL PANEL *15A1)	RPS716	3A
717	NFO - CANCEL REPLY	NFO MAIN DATA LINK CONTROL PANEL (15A2)	RPS717	3A
718	MASTER - EMERG	IFF CONTROL PANEL (09A1)	SXS718	3A
719	WCS - STDBY/SMIT ON SELECT	P/O HAND CONTROL (27A20) (560) WCS SWITCH	TBS719	4A
720	IR COOLING - INTERLOCK	INFRARED AMPLIFIER *27A22) (120)	THS720	5A
721	OIL FLOW > 1.0 GPM	RADAR TRANSMITTER (27A8) (011)	TBS721	4A
722	HYDRAULICS - ON	REGULATED POWER SUPPLY (27A24A4) (610) (HYDRAULICS ON)	TBS722	4A
723	THERMAL SWITCH - CLOSED	RADAR ANTENNA (27A2) (031)	TBS723	4A
724	WCS 28VDC - EXT	REGULATED POWER SUPPLY (27A24A4) (610) (WCS 28VDC EXT)	TBS724	4A
726	RADAR TEST ENABLE - SCAN ONLY	RADAR TEST ENABLE CONTROL PANEL (27A37)	TBS726	4A
727	DC REG ON - ENABLE	REGULATED POWER SUPPLY (27A24A4) (610) (DC REG ON ENABLE)	TBS727	4A
728	IR/TV ON - SELECT	P/O HAND CONTROL (27A20) (560) IR/TV SWITCH	THS728	5A
729	IR/TV STBY - SELECT	P/O HAND CONTROL (27A20) (560) IR/TV SWITCH	THS729	5A

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
001	< 62° Wing Sweep	CKS001	Wing Position Switch (51A5)	FS 435	Limit Switch (DPDT)	Open or Switched 28 VDC	1) K53, K57 Relays (Right Glove Relay Box 772A1)	DPDT Limit Switch (51A5)	03P01	IWSFD Fig. 1 Zone 70B	009 584	Solid State
002	Left MLG - Weight on Wheels	GDS002	Left MLG Safety Switch (48S2)	Left MLG (WL100) (FS570)	Limit Switch (4PDT)	Open or Switched 28 VDC	K10, K29, K96, K31, K30, K13, K12, K2, K32 (Right Glove Relay Box)	4 PDT Limit Switch (48S1)	06P01	IWSFD Fig.1 Zone 83C (See Landing Gear Safety - Interlock System A51 A60 54RUA) and IWSFD Fig. 31	237 261 267 242 262 275 244 263 276 259 264 277 260 265 243 016 266 278 026 280 095 027 281 096 028 286 097 031 287 098 206 295 101 210 296 112 211 283 219 232 284 214 233 542 213 234 543 212 235 552 500 704 558 279 705 312 310 715 313 311 721 270 580 722 735 581 723 737 582 724 738 583 725 739 586 726 564 587 565 568	Solid State
102	Right MLG - Weight on Wheels	GDS102	Right MLG Safety Switch (48S2	Right MLG (WL100) (FS570)	Limit Switch (4PDT)	Open or Switched 28 VDC	K20, K17, K21, K62, K2, K89, K22, K4 (Left Glove Relay Box)	4 PDT Limit Switch (48S2)	07P01			Solid State
021	Rudder Trim Switch - Left	CJS021	Inlet Ramps/Eng Crank/Throttle Control Panel (710A1)	Pilots Left Side Console (FS225)	Slide Switch (TPDTCO)	Open/28 VDC Open/115V ØB or ØC Open/115V ØA	Rudder Trim Actuator (20A17)	Triple Pole, Double Throw Center Off Slide Switch (710 A1)	01P01	IWSFD Fig.1 Zone 85A	086 087 089	Solid State
022	Rudder Trim Switch - Right	CJS022	Inlet Ramps/Eng Crank/Throttle Control Panel (710A1)	Pilots Left Side Console (FS225)	Slide Switch (TPDTCO)	See Item 021	Rudder Trim Actuator (20A17)	Triple Pole Double Throw Center Off Slide Switch (710A1)	01P02	IWSFD Fig.1 Zone 85A	086 088 089	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
023	Trim Switch-up	CFS023	Control Stick (20A4) Hand Grip (20A4A2) Transducer Assy (20A4A1)	Pilots Cockpit (FS225)	4 Position Rotary Switch	Trim up = 28 VDC Trim up = Open	K52 Nose Up Trim Relay (Left Glove Relay Box 773A1)	Control Stick Trim Switch	02P01	IWSPD Fig.1 Zone 86C	090 091 093	Solid State
024	Trim Switch-Down	CFS024	Control Stick (20A4) Hand Grip (20A4A2) Transducer (Assy (20A4A1)	Pilots Cockpit (FS225)	4 Position Rotary Switch	Trim Dwn = 28VDC Trim Dwn = Open	K53 Nose Dwn Trim Relay (Left Glove Relay Box 773A1)	Control Stick Trim Switch	02P02	IWSPD Fig.1 Zone 86C	090 092 093	Solid State
025	Attitude Hold Selected	CFS025	AFCS Control Panel (20A9)	Pilots Left Side Console (FS225)	Voltage Sensing Adapter	Att. Hold Selected = 28 VDC Att. Hold Selected = Open or Gnd	K58 Manual Trim Control Relay (Right Glove Relay Box 772A1)	N/A	05D01	IWSPD Fig.1 Zone 18C, 85C	090 305 091 306 092 307 093 308 094	External Signal Adapter
031	Combined Hydraulic Pressure Switch-Normal (>2100PSI)	DHS031	Comb Hyd Pressure Switch (63S1)	(FS625)	Pressure Switch	Normal=28 VDC Low = Open	a) External Elec Pwr Contactor (66AK3) discrete b) Pitch Computer Discrete c) Yaw Computer Discrete d) Roll Computer Discrete	Comb Hyd Pressure Switch (63S1)	06P02	IWSPD Fig.1 Zone 70C	099 262 263 295 268 273 270 735	Solid State
032	Flt Hyd Pressure Switch - Normal (>2100PSI)	DHS032	Flt Hyd Pressure Switch (63S2)	(FS625)	Pressure Switch	Normal=28VDC Low=Open	a) Pitch Computer Discrete b) Yaw Computer Discrete c) Roll Computer Discrete	Flt Hyd Pressure Switch (63S2)	06P03	IWSPD Fig.1 Zone 70C	100 264 283 262 269 284 263 270 295 273 735	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
033	Autopilot Engage Nosewheel Steering - Engage	GHS033	Control Stick (20A4) Hand Grip (20A4A2)	Pilots Cockpit (PS225)	Pushbutton Switch	Engage=28VDC Disengage=Open	a) Pitch Computer (20A2) b) Roll Computer (20A3)	Autopilot engage Nose Wheel Steering pushbutton switch	02P03	IWSFD Fig.1 Zone 37B	101	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
216	Wing Sweep - < 57°	GES216	P/O Wing Position Switch (51A5)	FS 540 WL 170	Limit Switch DPDT	< 57° = Switched 28VDC > 57° = Open	Roll Computer (20A3)	Wing Position Switch Wing Sweep Less than 57° (28VDC)	05P01	IWSFD Fig.1 Zone 72C	302	Solid State
217	Left Flap - ≥ 25°	CGS217	Left Flap Position Switch (20S2)	Left Wing FS625 BL360	Limit Switch SPDT	≥ 25° = Switched 28VDC < 25° = Open	K1 ADC Switching Assembly (20A4)	Left Flap Position Switch (20S2)	06P04	IWSFD Fig.1 Zone 77A	303 304 714 584	Solid State
218	Right Flap - ≥ 25°	CGS218	Right Flap Position Switch (20S1)	Right Wing FS625 BL360	Limit Switch SPDT	≥ 25° = Switched 28VDC < 25° = Open	K2 ADC Switching Assembly (20A4)	Right Flap Position Switch (20S1)	07P02	IWSFD Fig.1 Zone 73C	303 304 714 584	Solid State
219	DLC Engage ChaffDispense-ON	TMS219	DLC EngageChaff Dispense Pushbutton Switch P/O Control Stick (20A4)	Pilots Cockpit FS225	Pushbutton Switch SP	ON = Switched 28 VDC OFF = Open	a) Pitch Captr (20A2) b) Roll Comptr (20A3) c) K83-DLC trim servo engage P/O Right Glove Relay Box (772A1)	DLC Engage Chaff Dispense Pushbutton Switch	01P03	IWSFD Fig.1 Zone 37A	304 714	Solid State
220	Left - Trim	CFS220	P/O Control Stick (20A4) - Hand Grip (20A4A2) Trim Switch	Pilots Cockpit FS225	4 Position Rotary Switch	Left Trim = Switched 28VDC Left Trim Not = Open	K55 - Left Trim P/O Left Glove Relay Box (773A1)	Control Stick Trim Switch	02P04	IWSFD Fig.1 Zone 86C	305 307 308	Solid State
221	Right-Trim	CFS221	P/O Control Stick (20A4) - Hand Grip (20A4A2) Trim Switch	Pilots Cockpit FS225	4 Position Rotary Switch	Right Trim = Switched 28VDC Right Trim Not= Open	K54 - Right Wing Trim P/O Left Glove Relay Box (773A1)	Control Stick Trim Switch	02P05	IWSFD Fig.1 Zone 86C	305 306 308	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
222	Master Reset - Depressed	UCS222	Fuel Management (707A1) Master Reset Pushbutton	Pilots Left Vertical Consol FS 225	3 Pole Pushbutton	Depressed = Switched 28VDC Depressed Not = Open	Pitch CMPTR Yaw CMPTR Roll CMPTR (Master Reset Signal)	Master Reset Pushbutton	01P04	IWSFD Fig.1 Zone 70A	309	Solid State
223	Anti Skid/ Spoiler BK - Spoiler BK	CDS223	Fuel Management (707A1) Anti Skid/Spoiler BK Switch	Pilots Left Vertical Console FS225	Toggle SPDT	Spoiler BK = Switched 28VDC OFF= Open	Pitch CMPTR Roll CMPTR (Gnd Roll Braking Signal)	Anti-Skid/Spoiler BK Switch	01P05	IWSFD Fig.1 Zone 70A	312 313 310 311	Solid State
224	No. 4 Right Spoiler - > 0°	CGS224	No. 4 Right Spoiler Actuator (20A31)	Right Wing FS 600 BL 320	Limit Switch SPDT	> 0° = Switched 28VDC 0° = Open	K77-Gnd Roll Braking No.2 (R. Glove Relay Box 772A1)	N/A	07P03	IWSFD Fig.1 Zone 76C	320 313 310	Resistor Divider Adapter
225	No. 3 Right Spoiler - > 0°	CGS225	No. 3 Right Spoiler Actuator (20A30)	Right Wing FS 600 BL 260	Limit Switch SPDT	> 0° = Switched 28VDC 0° = Open	K77 - Gnd Roll Braking No. 2 (R. Glove Relay Box 772A1)	N/A	07P04	IWSFD Fig.1 Zone 75C	320 313 310	Resistor Divider Adapter
226	No. 2 Right Spoiler - > 0°	CGS226	No. 2 Right Spoiler Actuator (20A29)	Right Wing FS 600 BL 240	Limit Switch SPDT	> 0° = Switched 28VDC 0° = Open	K56 - Gnd Roll Braking No. 1 (R. Glove Relay Box 772A1)	N/A	07P05	IWSFD Fig.1 Zone 79B	314 312 311	Resistor Divider Adapter
227	No. 1 Right Spoiler - > 0°	CGS227	No. 1 Right Spoiler Actuator (20A28)	Right Wing FS 600 BL 200	Limit Switch SPDT	> 0° = Switched 28VDC 0° = Open	K56 - Gnd Roll Braking No. 1 (R. Glove Relay (Box 772A1)	N/A	07P06	IWSFD Fig.1 Zone 78B	314 312 311	Resistor Divider Adapter
228	No. 2 Left Spoiler - < 18°	CGS228	No. 2 Left Spoiler Actuator (20A25)	Left Wing FS 600 BL 240	Limit Switch SPDT	<18° = Switched 28 VDC <18° = Open	-	N/A	06P05	IWSFD Fig.1 Zone 76A	312	Resistor Divider Adapter

TABLE I F-14 SOETEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 6

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
229	No. 1 Left Spoiler - <18°	CGS229	No. 1 Left Spoiler Actuator (20A24)	Left Wing FS600 BL200	Limit Switch SPDT	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	06P06	IWSFD Fig.1 Zone 74A	312	Resistor Divider Adapter
230	No. 2 Right Spoiler - <18°	CGS230	No. 2 Right Spoiler Actuator (20A29)	Right Wing FS600 BL240	Limit Switch SPDT	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	07P07	IWSFD Fig.1 Zone 79B	312	Resistor Divider Adapter
231	No. 1 Right Spoiler - <18°	CGS231	No. 1 Right Spoiler Actuator (20A28)	Right Wing FS600 BL200	Limit Switch SPDT	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	07P08	IWSFD Fig.1 Zone 78B	312	Resistor Divider Adapter
232	Left Stick/ Normal	CGS232	Roll Switch Assembly (20A32)	FS625	Limit Switch DPDT	Left Stick/ Normal = Switched 28VDC Right Stick = Open	-	N/A	06P07	IWSFD Fig.1 Zone 82B	312 313	Resistor Divider Adapter
233	Right Stick/ Normal	CGS233	Roll Switch Assembly (20A32)	FS625	Limit Switch DPDT	Right Stick/ Normal = Switched 28VDC Left Stick = Open	-	N/A	06P08	IWSFD Fig.1 Zone 82B	312 313	Resistor Divider Adapter
234	Stick SW	CGS234	Master Test Panel (734A1)	Pilots Right Side Console FS225	12 Position Rotary Switch with Push Test	Stick SW = switched 28VDC Stick SW = Open	-		02P06	IWSFD Fig.1 Zone 81A	312 313	Solid State
235	No. 3 Left Spoiler - <18°	CGS235	No. 3 Left Spoiler Actuator (20A26)	Left Wing FS600 BL260	Limit Switch	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	06P09	IWSFD Fig.1 Zone 76B	313	Resistor Divider Adapter
236	No. 4 Left Spoiler - <18°	CGS236	No. 4 Left Spoiler Actuator (20A27)	Left Wing FS600 BL320	Limit Switch	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	06P10	IWSFD Fig.1 Zone 75B	313	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 7

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
237	No. 3 Right Spoiler - <18°	CGS237	No.3 Right Spoiler Actuator (20A30)	Right Wing FS600 BL260	Limit Switch	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	07P09	IWSFD Fig.1 Zone 75C	313	Resistor Divider Adapter
238	No. 4 Right Spoiler - <18°	CGS238	No. 4 Right Spoiler Actuator (20A31)	Right Wing FS600 BL320	Limit Switch	< 18° = Switched 28VDC ≥ 18° = Open	-	N/A	07P10	IWSFD Fig.1 Zone 76C	313	Resistor Divider Adapter
239	No. 2 Left Spoiler - > 0°	CGS239	No. 2 Left Spoiler Actuator (20A25)	Left Wing FS600 BL240	Limit Switch	> 0° = Switched 28VDC 0° = Open	Control Surface Position Indicator (64M1)	N/A	06P11	IWSFD Fig.1 Zone 76A	315	Resistor Divider Adapter
240	No. 1 Left Spoiler - > 0°	CGS240	No. 1 Left Spoiler Actuator (20A24)	Left Wing FS600 BL200	Limit Switch	> 0° = Switched 28VDC 0° = Open	ControlSurface Position Indicator (64M1)	N/A	06P12	IWSFD Fig.1 Zone 74A	315	Resistor Divider Adapter
241	No. 2 Left Spoiler - (-4.5°)	CGS241	No. 2 Left Spoiler Actuator (20A25)	Left Wing FS600 BL240	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	06P13	IWSFD Fig.1 Zone 76A	316	Resistor Divider Adapter
242	No. 1 Left Spoiler - (-4.5°)	CGS242	No. 1 Left Spoiler Actuator (20A24)	Left Wing FS600 BL200	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	06P14	IWSFD Fig.1 Zone 74A	316	Resistor Divider Adapter
243	No. 1 Right Spoiler - (-4.5°)	CGS243	No. 1 Right Spoiler Actuator (20A28)	Right Wing FS600 BL200	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	07P11	IWSFD Fig.1 Zone 78B	317	Resistor Divider Adapter
244	No. Right Spoiler - (-4.5°)	CGS244	No. Right Spoiler Actuator (20A29)	Right Wing FS600 BL240	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	07P12	IWSFD Fig.1 Zone 79B	317	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1 SHEET 8

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
245	No. 3 Left Spoiler - >0°	CGS245	No. 3 Left Spoiler Actuator (20A26)	Left Wing FS600 BL260	Limit Switch	> 0° = Switched 28VDC 0° = Open	Control Surface Position Indicator (64M1)	N/A	06P15	IWSFD Fig.1 Zone 76B	318	Resistor Divider Adapter
246	No. 4 Left Spoiler - >0°	CGS246	No. 4 Left Spoiler Actuator (20A27)	Left Wing FS600 BL320	Limit Switch	> 0° = Switched 28VDC 0° = Open	Control Surface Position Indicator (64M1)	N/A	06P16	IWSFD Fig.1 Zone 74B	318	Resistor Divider Adapter
247	No. 3 Left Spoiler - (-4.5°)	CGS247	No. 3 Left Spoiler Actuator (20A26)	Left Wing FS600 BL260	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	06P17	IWSFD Fig.1 Zone 76B	319	Resistor Divider Adapter
248	No. 4 Left Spoiler - (-4.5°)	CGS248	No. 4 Left Spoiler Actuator (20A27	Left Wing FS600 BL320	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	06P18	IWSFD Fig.1 Zone 75B	319	Resistor Divider Adapter
249	No. 3 Right Spoiler - (-4.5°)	CGS249	No. 3 Right Spoiler Actuator (20A30)	Right Wing FS600 BL260	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.5°}$ = Open	Control Surface Position Indicator (64M1)	N/A	07P13	IWSFD Fig.1 Zone 75C	321	Resistor Divider Adapter
250	No. 4 Right Spoiler - (-4.5°)	CGS250	No. 4 Right Spoiler Actuator (20A31)	Right Wing FS600 BL320	Limit Switch	-4.5° = Switched 28VDC $\overline{-4.50}$ = Open	Control Surface Position Indicator (64M1)	N/A	07P14	IWSFD Fig.1 Zone 76C	321	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
001	AC-1 Pole	V = 115VAC ϕC I = 3 AMP	MACH Trim Actuator (20A15A2)	Continuous 100%	115 VA 92 Watts - 69 VARS P.F. = -0.8		CB11 - Mach Trim AC (3 AMP) (35A6)	11Q01	CPL001	IWSFD Fig. 1 Zone 32A	001
002	AC-1 Pole	V = 115VAC ϕC I = 2 AMP	1) Rudder Authority Control Actuator (20A22) Fixed Phase 2) Roll Authority Control Actuator (20A20) Fixed Phase	Continuous 100%	230 VA 207 Watts -100 VARS P.F. = -0.9		CB10 - Flt Control Authority AC (3 AMP) (35A6)		CPL002	IWSFD Fig. 1 Zone 66A,67A	002
003	AC - 1 Pole	V = 115VAC ϕA	Pitch Computer (20A2)	Continuous 100%			CB4 - Pitch CMPTR AC (5 AMP) (35A6)	05Q14 11Q02	UCL003	IWSFD Fig. 1 Zone 41C	003
004	AC- 1 Pole	V = 115VAC ϕA	Pitch Computer (20A2) Auto Pitch Drive Trim	Continuous 100%			CB6 - Auto Pitch Drive Trim (3 AMP) (35A6)	05Q15	UCL004	IWSFD Fig. 1 Zone 41C	004
005	AC - 1 Pole	V = 115VAC ϕA	Yaw SAS Computer "A" Power Supply (20A1)	Continuous 100%			CB7 - Yaw SAS "A" Pwr Supply (3 AMP)(35A6)	05Q16	UCL005	IWSFD Fig. 1 Zone 61C	005
006	AC - 1 Pole	V - 115VAC ϕA	Yaw SAS Computer "M" Power Supply (20A1)	Continuous 100%			CB9 - Yaw SAS "M" Pwr Supply (3 AMP) (35A6)	05Q17	UCL006	IWSFD Fig. 1 Zone 61C	006
007	AC - 1 Pole	V = 115VAC ϕA	Yaw SAS Computer "B" Power Supply (20A1)	Continuous 100%			CB8 - Yaw SAS "B" Pwr Supply (3 AMP) (35A6)	05Q18	UCL007	IWSFD Fig. 1 Zone 61C	007
008	AC - 1 Pole	V = 115VAC ϕA	Roll Computer 115 VAC 0A (20A3)	Continuous 100%			CB1 - Roll CMPTR AC (5 AMP) (35A6)	01Q39	UCL008	IWSFD Fig. 1 Zone 21C	008
009	DC - 1 Pole	V = 28VDC	#1 Left (20A24), #2 Left (20A25), #1 Right (20A28), #2 Right (20A29), Spoiler Actuator Solenoid Operated Control Valves				CB54 - Inboard Spoiler Contr (5 AMP) (36A2) K57 - Right Glove Box Relay	11Q03	CKL009	IWSFD Fig. 1 Zone 73A, 75A, 77B, 79B	009

TABLE 11 F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
010	DC - 1 Pole	V = 28VAC	#3 Left (20A26) #4 Left (20A27) #3 Right (20A30) #4 Right (20A31) Spoiler Actuator Solenoid Operated Control Valves				CB37 (5 AMP) Outbd Spoiler Contr (36A4) K53 - Right Glove Box Relay	11Q04	CKL010	IWSFD Fig. 1 Zone 74B, 74C, 75B, 75C	010
011	DC - 1 Pole	V = 28VDC	Roll Computer (20A3) Mach Trim 28VDC	Continuous 100%			CB10 - Mach Trim DC (5 AMP) (36A3)	01Q22	UCL011	IWSFD Fig. 1 Zone 21C	011
012	DC - 1 Pole	V = 28VDC	Yaw SAS Computer (20A1) "A" Power Supply	Continuous 100%			CB41 - Yaw SAS "A" (5 AMP) (36A2)	05Q19	UCL012	IWSFD Fig. 1 Zone 61C	012
013	DC - 1 Pole	V = 28VDC	Yaw SAS Computer (20A1) "B" Power Supply	Continuous 100%			CB40 - Yaw SAS "B" (5 AMP)(36A2)	05Q20	UCL013	IWSFD Fig. 1 Zone 61C	013
014	DC - 1 Pole	V = 28VDC	1) Yaw Computer (20A1) Roll Authority 28VDC 2) Yaw Computer (20A1) Rudder Authority 28VDC	Continuous 100%			CB12 - Flt Contr Auth DC (5 AMP)(36A3)	05Q21	UCL014	IWSFD Fig. 1 Zone 57B	014
015	DC - 1 Pole	V = 28VDC	Yaw SAS Computer (20A1) "M" Power Supply	Continuous 100%			CB39 - (5 AMP) Yaw SAS "M" (36A2)	05Q22	UCL015	IWSFD Fig. 1 Zone 61C Zone 82C	015
016	DC - 1 Pole	V = 28VDC	1) Roll SAS Computer (20A3) Weight on Wheels Signal (28 VDC) 2) Pitch SAS Computer (20A2) WOW (28VDC) 3) Yaw SAS Computer (20A1) WOW (28VDC)				K12 - MLG Safety Right Glove Box Relay (Shares CB39 with Yaw SAS "M") Item 015	01Q45 05Q23	UCL016	IWSFD Fig. 1 Zone 82C	016

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
017	AC - 1 Pole	V = 26VAC ØA	1) Roll SAS Computer (20A3) INS 26VAC Ø Reference 2) IMU (06A1) 26VAC ØA 3) CSDC (07A1) 26VAC ØA	Continuous 100%			CB5 (3AMP) INS Sync/ ACM Fnl Lt (35A4)	01Q34	UCL017	IWSFD Fig. 1 Zone 21A IWSFD Fig.14 Zone 16A Zone 25A	017
086	AC - 1 Pole	V = 115VAC ØA I = 5A	a) Rudder Trim Actuator (20A17) 115VAC ØA				CB4 (5A) Rudder Trim PH A (35A2)	11Q05	CJL086	IWSFD Fig. 1 Zone 3B, 85A 93B IWSFD Fig. 2 Zone 2	086
087	AC - 1 Pole	V = 115VAC ØB I = 5A	Rudder Trim Actuator (20A17) 115VAC ØB				CB19 (5A) Rudder Trim PH B (35A4)	11Q06	CJL087	IWSFD Fig. 1 Zone 3B, 85A 93B IWSFD Fig. 2 Zone 2	087
088	AC - 1 Pole	V = 115VAC ØC I = 5A	Rudder Trim Actuator (20A17) 115VAC ØC				CB9 (5A) Rudder Trim PH C (35A4)	11Q07	CJL088	IWSFD Fig. 1 Zone 3A, 85B 93B IWSFD Fig. 2 Zone 2	088
089	DC - 1 Pole	V = 28VDC	a) Rudder Trim Actuator (20A17) 28VDC Clutch/ Brake Solenoid				CB7 L DC Test-Rudder Trim (36A2)	11Q08	CJL 089	IWSFD Fig. 1 Zone 4B, 85B 93B NAVAIR 01-F14AAA-2-2-9 Fig. 5 Page 48	089
090	AC - 1 Pole	V = 115 VAC ØA I = 5A	a) Pitch and Mach Trim Actuator (20A15) 115VAC ØA				CB5 (5A) L PH A Test/ Roll Trim (35A2)	11Q09	CFL090	IWSFD Fig. 1 Zone 3B, 87A 89B	090
091	AC - 1 Pole	V = 115VAC ØB I = 5A	Pitch and Mach Trim Actuator (20A15) 115VAC ØB				CB18(5A) L PH B Test/ P-Roll Trim (35A4)	11Q10	CFL091	IWSFD Fig. 1 Zone 3A, 87A 89B	091

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
092	AC - 1 Pole	V = 115 VAC ØC I = 5A	Pitch and Mach Trim Actuator (20A15) 115VAC ØC				CB8 (5A) L PH C Test/ P-Roll Trim (35A4)	11Q11	CFL092	IWSFD Fig. 1 Zone 3A, 87A 89B	092
093	DC - 1 Pole	V = 28VDC I = 5A	Pitch and Mach Trim Actuator (20A15) Clutch/Solenoid 28VDC (J1-4)				CB7 (5A) SPD BK/ P Roll Trim Enable (36A3)	11Q12	CFL093	IWSFD Fig. 1 Zone 2B, 85C 86C, 87C, 88C 89B	093
094	DC - 1 Pole	V = 28VDC I = 5A	Pitch and Mach Trim Actuator (20A15) Clutch/Brake Solenoid 27VDC (J1-7)				CB7 (5A) SPD BK/P Roll Trim Enable (36A3)	11Q13	CFL094	IWSFD Fig. 1 Zone 51A, 86C	094
099	Comb, Hyd Press-Normal (Solid State Discrete Driver)	Normal = 28VDC Low = Open	a) External Elec Pwr Contactor (66A6K3) Discrete b) Pitch Computer Discrete c) Yaw Computer Discrete d) Roll Computer Discrete				CB40 (7.5A) Emerg. Flt Hyd. Auto (36A1) Comb Hyd Press Switch (63S1)	04D14 06D12 06D13	DHL 099	IWSFD Fig. 1 Zone 2A, 69C	099
100	Flt Hyd Pres Normal (Solid State Discrete Driver)	Normal = 28VDC Low = Open	a) Pitch Comp. Discrete b) Yaw Comp. Discrete c) Roll Comp. Discrete				Flt Hyd Press Switch (63S2) CB40 (7½A) Emerg Flt Hyd Auto (36A1)	04D15 06D14 06D15	DHL 100	IWSFD Fig. 1 Zone 2A, 69C	100
101	Autopilot Reference Engage (Solid State Discrete Driver)	Engage= 28 VDC Disengage= Open	a) Pitch Comp (20A2) Discrete b) Roll Comp (20A3) Discrete				CB8 (3A) Nose Wheel Steer/APCS (36A3) Auto Pilot Engage - Nosewheel steering Pushbutton Switch (20AA2)	04D16 06D16	GHL 101	IWSFD Fig. 1 Zone 2B, 37B 39B, 21C, 41B	101

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
300	DC - 1 Pole	V = 28VDC	Roll Computer (20A3) (Power Supply)	100%			CB37 (5A) Roll CMPTR DC (36A2)	01Q23	UCL 300	IWSFD Fig. 1 Zone 21C, 69B 4C	300
301	DC - 1 Pole	V = 28VDC	Pitch Computer (20A2) (Power Supply)	100%			CB38 (5A) Pitch CMPTR DC (36A2)	05Q24	UCL301	IWSFD Fig. 1 Zone 41C, 69B 4C	301
302	Enable Driver	V = 28VDC	a) Pitch Computer (20A2) b) Roll Computer (20A3) (Wing Sweep < 57° Signal)				CB38 (5A)Pitch CMPTR DC (36A2) CB37 (5A) Roll COMPTR DC (36A2)	04D17 06D18	GEL302	IWSFD Fig. 1 Zone 4C, 72C 21B	302
303	Enable Driver	V = 28VDC	a) Pitch Computer (20A2) b) Roll Computer (20A3) (Flaps ≥ 25° Down Signal)				CB 38 (5A) Pitch CMPTR DC (36A2) CB37 (5A) Roll COMPTR DC (36A2) Diode "OR" Gate P/O Right Glove Relay Box (772A1)	04D18 06D18	CGL 303	IWSFD Fig.1 Zone 4C, 73C 77A, 83C, 21 41B, 38A	303
304	Enable Driver	V = 28VDC	a) Pitch Computer (20A2) b) Roll Computer (20A3) (DLC Engage Signal)				P/O K60 - Flaps Down Right Glove Relay Box (772A1) CB37 (5A) Roll CMPTR DC (36A2)	04D19 06D19	TML 304	IWSFD Fig. 1 Zone 21C, 41B 83C, 38A	304
305	AC - 1 Pole	V = 115 VAC ØA	Roll Trim Actuator (20A18) 115VAC ØA Fixed Phase				P/O K54 - Right Wing Trim P/O K55 - Left Wing Trim CBS - (5A) LPH A Test/ Roll Trim (35A2)	11Q14	CFL 305	IWSFD Fig. 1 Zone 4B, 87B, 87C, 86C, 85C, 3A, 41C	305
306	AC - 1 Pole	V = 115 VAC ØB	Roll Trim Actuator (20A18) 115VAC ØB				P/O K54 - Right Wing Trim (L. Glove Relay Box 773A1) CB 18 (5A) L PH B Test/ P Roll Trim (35A4)	11Q15	CFL 306	IWSFD Fig. 1 Zone 4B, 87B 87C, 86C, 85C, 3A, 41C	306

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 6

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
307	AC - 1 Pole	V = 115VAC ØC	Roll Trim Actuator (20A18) 115VAC ØC				CB8 (5A)LPH C Test/ P Roll Trim (35A4) (L. Glove Relay Box 773A1)	11Q16	CPL 307	IWSFD Fig. 1 Zone 4B, 87B, 87C, 86C, 85C, 3A, 41C	307
308	DC - 1 Pole	V = 28VDC	Roll Trim Actuator (20A18) Clutch/Brake Solenoid 28 VDC				Diodes CR105/CR106 (Left Glove Relay Box 773A1) CB7 (5A) SPD BK P Roll Trim Enable (36A3)	11Q17	CPL 308	IWSFD Fig. 1 Zone 2A, 85C 86C, 87C, 89A	308
309	Enable Signal	V = 28VDC	Roll, Pitch & Yaw CMPTR - Master reset Signal				CB1 (5A) GND Roll Braking/Spoiler Pos Ind (36A2) CB37 (5A) Roll CMPTR DC (36A2) CB38 (5A) Pitch CMPTR DC (36A2) CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	04D20 06D20	UCL 309	IWSFD Fig. 1 Zone 4C, 70A 21B, 41C, 61B	309
310	Enable Signal	V = 28VDC	Pitch CMPTR (20A2) GND Roll Braking Signal				P/O K29 - MLG Safety N P/O K77 - Gnd Roll Braking No. 2 (R. Glove Relay Box 773A1)	06D21	UCL 310	IWSFD Fig.1 Zone 41C, 83 69A, 70A, 4C 75C, 74C, 2C	310
311	Enable Signal	V = 28VDC	Roll CMPTR (20A3) GND Roll Braking Signal				P/O K56 - GND Roll Braking No. 1 P/O K12 - MLG Safety K (R. Glove Relay Box 772A1) CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	04D21	UCL 311	IWSFD Fig. 1 Zone 21B, 83 69A, 70A, 4C 79B, 78B	311

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 7

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
312	Enable Signal	V = 28VDC	Roll Computer (20A3) - Inboard Spoilers - < 18° Signal				P/O - K200 Spoilers Test P/O - K 56 Ground Roll Braking No. 1 (R. Glove Relay Box 772A1) CB37 (5A) Roll CMPTR DC (36A2)	04D22	UCL 312	IWSFD Fig. 1 Zone 21C, 83 82, 81A, 76A 74A, 79B, 78B, 69A, 70A, 4C	312
313	Enable Signal	V = 28VDC	Pitch Computer (20A2) - Inboard Spoilers - < 18° Signal				P/O - K200 Spoilers Test P/O - K77 Ground Roll Braking No. 2 (R. Glove Relay Box 772A1) CB38 (5A) Pitch CMPTR DC (36A2)	06D22	UCL 313	IWSFD Fig. 1 Zone 41B, 75 76, 82, 69A, 70A, 74C, 4C, 2C	313
314	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) (Right Inboard Spoilers-UP)				CB1 (5) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	02D01	DLL 314	IWSFD Fig. 1 Zone 82C, 79B, 78B, 4C	314
315	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) (Left Inboard Spoilers - UP)				CB1 (5A) Gnd Roll Braking/Spoiler Pos, Ind (36A2)	02D02	DLL 315	IWSFD Fig. 1 Zone 82C, 75A 74A, 4C	315
316	Flag Driver	V = 28 VDC	Control Surface Position Indicator (64M1) (Left Inboard Spoilers - Droop)				CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	02D03	DLL 316	IWSFD Fig. 1 Zone 82C, 25A, 74A, 4C	316
317	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) (Right Inboard Spoilers - Droop)				CB1 (5A) Gnd Roll Braking Spoiler Pos Ind (36A2)	02D04	DLL 317	IWSTD Fig. 1 Zone 82C, 79B, 78B, 4C	317

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1 SHEET 8

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
318	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) (Left Outboard Spoilers - UP				CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	02D05	DLL318	IWSFD Fig. 1 Zone 82C, 76B 75B, 4C	318
319	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) (Left Outboard Spoilers - Droop				CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	02D06	DLL319	IWSFD Fig. 1 Zone 82C, 76B 75B, 4C	319
320	Flag Driver	V=28VDC	Control Surface Position Indicator (64M1) (Right Outboard Spoilers - UP				CB1 (5A) Gnd Roll Braking/Spoiler Pos. Ind (36A2)	02D07	DDL320	IWSFD Fig. 1 Zone 82C, 76C 75C, 4C	320
321	Flag Driver	V = 28VDC	Control Surface Position Indicator (64M1) Right Outboard Spoilers - Droop)				CB1 (5A) Gnd Roll Braking Spoiler Pos. Ind (36A2)	02D08	DDL321	IWSFD Fig. 1 Zone 82C, 76C 75C, 4C	321

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
001	CFL001	NA	001	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 32A, 2A	Mach Trim AC = 115 VAC ϕC Essential #2 Bus Energized
002	CFL002	NA	002	2	Flight Critical Ess. No. 2 Bus	IWSFD Fig. 1 Zone 2A, 67A	Rudder Authority Control Actuator Fixed ϕC and Roll Authority Control Actuator Fixed ϕC = 115 VAC ϕC Essential #2 BUS Energized
003	UCL003	NA	003	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 41C	Pitch Computer 115VAC ϕA Essential #2 BUS Energized
004	UCL004	NA	004	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 41C	Pitch Computer 115 VAC ϕA Auto Pitch Drive Trim = 115 VAC ϕA Essential #2 BUS Energized
005	UCL005	NA	005	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 61C, 2B	Yaw SAS Computer "A" Power Supply 115 VAC ϕA = 115 VAC ϕA Essential #2 BUS energized
006	UCL006	NA	006	2	Flight Critical Ess. No. 2 Bus	IWSFD Fig. 1 Zone 61C, 2B	Yaw SAS Computer "M" Power Supply 115 VAC ϕA = 115 VAC ϕA Essential #2 BUS Energized
007	UCL007	NA	007	2		IWSFD Fig. 1 Zone 61C, 2B	Yaw SAS Computer "B" Power Supply 115 VAC ϕA = 115 VAC ϕA Essential #2 BUS Energized
008	UCL008	NA	008	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 21C	Roll Computer 115VAC ϕA = 115 VAC ϕA Essential #2 BUS Energized
009	CKL009 = CKS001	001	009	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 73A, 75A, 77B, 79B	#1 Left, #2 Left, #1 Right, #2 Right; Spoiler Actuator Solenoid Operated Relief Valve is energized if the wing sweep is less than 62°.
010	CKL010 = CKS001	001	010	3	R. Main Bus	IWSFD Fig. 1 Zone 74C, 75C 74B, 75B	#3 Left, #4 Left, #3 Right, #4 Right; Spoiler Actuator Solenoid operated relief valve is energized if the wing sweep is less than 62°.
011	UCL011	NA	011	2	Ess. No. Bus	IWSFD Fig. 1 Zone 21C, 3A	Roll Computer Mech Trim 28 VDC = 28 VDC Essential #2 BUS Energized
012	UCL012	NA	012	2	AFCS Bus	IWSFD Fig. 1 Zone 61C, 3B	Yaw SAS Computer "A" Power Supply = 28 VDC AFCS BUS Energized
013	UCL013	NA	013	2	AFCS Bus	IWSFD Fig. 1 Zone 61C, 3C	Yaw SAS Computer "B" Power Supply = 28 VDC AFCS BUS Energized
014	UCL014	NA	014	2	Flight Critical Ess. No. 2 Bus	IWSFD Fig. 1	Yaw Computer Roll Authority 28 VDC and Rudder Authority 28 VDC = 28 VDC Essential #2 BUS Energized

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
015	UCL015	NA	015	2	AFCS Bus	IWSFD Fig. 1 Zone 61C	Yaw SAS Computer "M" Power Supply if the 28 VDC AFCS BUS is energized
016	UCL016 = GDS002 · GDS102	002 102	016	2	AFCS Bus	IWSFD Fig. 1 Zone 21C, 41B	Roll, Yaw & Pitch SAS Computer 28 VDC WOR Signal = LMLG Wright on Wheels and R. MLG Weight on Wheels
017	UCL017	NA	017	2	NAV. Bus	IWSFD Fig. 1 Cone 21A	Roll SAS Computer INS 26 VAC ØA Reference and IMU 26 VAC ØA and CSDC 26 VAC ØA are on if the 26VAC ØA Navigation BUS is Energized
086	CJL086 = CJS021 + CJS022	021 022	086	2	* See Note 1 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 3B, 85A, 93B	Rudder Trim Actuator 115 VAC ØA = Rudder Trim Switch Left or Right
087	CJL087 = CJS021	021	087	2	* See Note 1 ** See Note 2 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 3B, 85A, 93B	Rudder Trim Actuator 115 VAC ØB = Rudder Trim Switch Left
088	CJL088 = CJS022	022	088	2	* See Note 1 ** See Note 2 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 3A, 85B, 93B	Rudder Trim Actuator 115 VAC ØC = Rudder Trim Switch Right
089	CJL089 = CJS021 + CJS022	021 022	089	2	* See Note 1 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 4B, 85B, 93B	Rudder Trim Actuator 28 VDC Clutch/Brake Solenoid = Rudder Trim Switch Left or Right

* Note 1 These controllers must be actuated & deactivated "simultaneously" (similar to multi-pole relay function)

** Note 2 These Controllers must be wire or'ed at outputs (equivalent to SPDTCO relay function)

B-18

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
090	CFL090 = $\overline{\text{CFS025}}$ · (CFS024 + CFS023)	025 024 023	090	2	* See Note 3 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 93B, 87, 86C, 85C, 3B	Pitch and Mach Trim Actuator 115 VAC ØA = Attitude Hold Selected NOT and Trim Switch down or up
091	CFL091 = $\overline{\text{CFS025}}$ · CFS023	025 023	091	2	* See Note 3 ** See Note 4 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 93B, 87, 86C, 85C, 3A	Pitch and Mach Trim Actuator 115 VAC ØB = Attitude Hold Selected NOT and Trim Switch up
092	CFL092 = $\overline{\text{CFS025}}$ · CFS024	025 924	092	2	* See Note 3 ** See Note 4 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 93B, 87 86C, 85C, 3A	Pitch and Mach Trim Actuator 115 VAC ØC = Attitude Hold Selected NOT and Trim Switch Down
093	CFL093 = $\overline{\text{CFS025}}$ · (CFS024 + CFS023	025 024 023	093	2	* See Note 3 *** See Note 5 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 93B, 87, 86C, 85C, 2A	Pitch and Mach Trim Actuator Clutch/Brake Solenoid 28VDC = Attitude Hold Selected NOT and Trim Switch down or Up
094	CFL094 = CFS025	025	094	2	*** See Note 5 Ess. No. 2 Bus	IWSFD Fig. 1 Zone 51A, 86C	Pitch and Mach Trim Actuator Clutch/Brake Solenois 28VDC = Attitude Hold Selected
099	DHL099 = DHS031	031	099	1	Solid State Discrete Driver Rather than SSPC Ess. No. 2 Bus	IWSFD Fig. 1 Zone 2A, 69C	Comb Hyd Press Normal 28VDC Discrete to the a) External Electrical Pwr Contactor (66A6K3) b) Pitch Computer (20A2) c) Yaw Computer (20A1) d) Roll Computer (20A3) IS = Comb. Hyd Press. Switch Normal (>2100 PSI)

* Note 3 These controllers must be actuated and Deactuated "simultaneously" (similar to Multi-Pole Relay Function)

** Note 4 These controllers must be wire or'ed at outputs (equivalent to SPDTCO relay function)

*** Note 5 There are two (2) Clutch/Brake Functions

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
100	DHL100 = DHS032	032	100	1	Solid State Discrete Driver Rather than SSPC Ess. No. 1 Bus	IWSFD Fig. 1 Zone 2A, 69C	Flt Hyd Press Normal 28VDC Discrete to the a) Pitch Comp. (20A2) b) Yaw Comp.(20A1) c) Roll Comp. (20A3) IS = Flt Hyd Press. Switch Normal (>2100 PSI)
101	$\frac{GHL101}{GDS002} = \frac{GHS022}{+ GDS102} \cdot$	033 002 102	101	2	Solid State Discrete Driver Rather than SSPC Ess. No. 1 Bus	IWSFD Fig. 1 Zone 2B, 37B 39B, 21C, 41B	Autopilot Reference Engage 28VDC Discrete to the a) Pitch Comp. (20A2) b) Roll Comp. (20A3) IS = Autopilot reference engage switch - Engaged and L MLG Weight on Wheels NOT or R MLG Weight on Wheels NOT

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 5

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
300	UCL300	N/A	300	2	AFCS Bus	IWSFD Fig. 1 Zone 21C, 4C,69B	Roll Computer (20A3) Power Supply 28VDC = 28VDC AFCS BUS Energized
301	UCL301	N/A	301	2	AFCS Bus	IWSFD Fig. 1 Zone 41C, 4C 69B	Pitch Computer (20A2) Power Supply 28VDC = 28VDC AFCS BUS Energized
302	GEL302 = GES216	216	302	2	Flight Critical Requires Two Sensors for GES216 AFCS Bus	IWSFD Fig. 1 Zone 4C, 72C 21B, 41C	Pitch Computer (20A2) and Roll Computer (20A3) - Wing Sweep - $< 57^{\circ}$
303	CGL303 = CGS217 + CGS218	217 218	303	2		IWSFD Fig. 1 Zone 4C, 73C 77A, 83C, 21C 41B, 38A	Pitch Computer (20A2) and Roll Computer (20A3) - Flaps $\geq 25^{\circ}$ Down = Left or Right Flaps $\geq 25^{\circ}$ down
304	TML304 = TMS219 • (CGS217 + CGS218)	217 218 219	304	2	AFCS Bus	IWSFD Fig. 1 Zone 21C, 41B 83C, 38A	Pitch Computer (20A2) and Roll Computer (20A3) - DLC Engage = DLC engage Chaff Dispense - on and left or right flaps $\geq 25^{\circ}$ down
305	CFL305 = (CFS220 + CFS221) • $\overline{\text{CFS025}}$	025 220 221	305	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 89A, 87 86C, 85C, 41C, 19C, 4B, 3A	Roll Trim Actuator 115VAC ϕA = (Left or right trim) and Attitude Hold Selected NOT
306	CFL306 = CFS221 •$\overline{\text{CFS025}}$	025 221	306	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 89A, 87, 86C, 85C, 41C, 19C, 4B, 3A	Roll Trim Actuator 115VAC ϕB = Right - Trim and Attitude Hold Selected NOT
307	CFL307 = CFS220 • $\overline{\text{CFS025}}$	025 220	307	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 89A,87,86C, 85C, 41C, 19C, 4B, 3A	Roll Trim Actuator 115VAC ϕC = Left Trim and Attitude Hold Selected NOT
308	CFL308 = CFS220 + CFS221) • $\overline{\text{CFS025}}$	025 220 221	308	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 2A, 85C, 86C, 87C, 89A	Roll Trim Actuator - Clutch/Brake Solenoid 28VDC = (Left or Right Trim) and Attitude Hold Selected NOT

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 6

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
309	UCL309 = UCL222	222	309	2	AFCS Bus	IWSFD Fig. 1 Zone 4C, 70A, 21B, 41C, 61B	Pitch, Yaw and Roll Compter - Master Reset = Master Reset - Depressed
310	UCL310 = A + A(t) • B(t) • $\overline{A}$(t+)	002 102 198 200 201 223 224 225	310	2	a) Requires Latching Function b) Flight Critical Parameter, Requires Seperate Transducers and Equation Solutions Relative to Equation 311 c) Ess. No. 2 Bus	IWSFD Fig. 1 Zone 41C, 83, 69A, 70A, 4C 75C, 74C, 2C	A = QKS201 • QKS200 • GDS002 • GDS102 • (CDS223 + GKS198) B = CGS224 + CGS225 Ground Roll Braking Signal to the Pitch Cmptr = Right and Left Throttle - Idle and left and right MLG - Weight on Wheels and (Anti Skid/Spoiler Brake Switch in the Spoiler Bk or Both Positions) Or if the above terms are true while the No. 4 right and No. 3 right spoilers are > 0° the above terms may subsequently become false.
311	UCL 311 = A + A(t) • B(t) • $\overline{A}$(t+)	002 102 198 200 201 223 226 227	311	2	a) Requires Latching Function b) Flight Critical Parameter, requires Separate Transducers and Equation Solutions relative to Equation 310 c) Ess. No. 2 Bus		A = QKs201 • QKS200 • GDS002 • GDS102 • (CDS223 + GKS 198) B = CGS226 + CGS227 Ground Roll Braking Signal to the Roll Cmptr = Right and Left Throttle - Idle and Left and Right MLG-Weight on Wheels and (Anti Skid/Spoiler Brake Switch in the - Spoiler Bk or Both Position) or If the above terms are true while the No. 2 right and No. 1 Right Spoilers are > 0° the above terms may subsequently become false.
312	UCL312 = [(CGS232 • CGS229 • CGS228) + (CGS233 • CGS231 • CGS230)] + [(CGS234 + MJS068) • (UCL311)]	002 068 102 198 200 201 223 226 227 228 229 230 231 232 233 234	312	2	Flight Critical - Requires Seperate Transducers and Equation Solutions Relative to Equation 313 AFCS Bus	IWSFD Fig. 1 Zone 21C, 83 82, 81A, 76A, 74A, 79B, 78B 69A, 70A, 4C	Roll Computer - Inboard Spoiler less than 18° Signal = (Left Stick/Normal and No. 2 Left Spoiler- < 18°) or (Right Stick/Normal and No. 2 Right Spoiler - < 18°) or [(Master Test - Stick SW not or Master Test - Not depressed) and the conditions for equation 311 are true]

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 7

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
313	UCL313 = [(CGS232 • CGS235 • CGS236) + (CGS233 • CGS237 • CGS238)] + [(CGS234 + MJS088) • UCL310]	002 068 102 198 200 201 223 224 225 232 233 234 235 236 237 238	313	2	Flight Critical Requires Seperate Transducers and Equation Solution Relative to Equation 312 AFCS Bus	IWSFD Fig. 1 Zone 41B, 75, 76, 82, 69A, 70A, 74C, 4C, 20	Pitch Computer - Outboard Spoiler less than 18° Signal = [(Left Stick/Normal and No. 3 and No. 4 Left Spoilers - < 18°) or (Right Stick/Normal and No. 3 and No. 4 Right Spoilers - < 18°)] or [Master Test - Stick SW not or Master Test - not depressed) and the Conditions for Equation 310 are true]
314	DLL314 = CGS226 + CGS227	226 227	314	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 79B, 78B, 4C	Right Inboard Position Indicator Flag-Up = No. 2 or No. 1 Right Spoilers - > 0°
315	DLL315 = CGS240 + CGS239	239 240	315	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 75A, 74A, 4C	Left Inboard Position Indicator Flag-Up = No. 1 or No. 2 Left Inboard Spoilers -> 0°
316	DLL316 = CGS242 • CGS241	241 242	316	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 75A, 74A, 4C	Left Inboard Position Indicator Flag-Droop = No. 1 and No. 2 Left Inboard Spoilers - (-4.5°)
317	DLL317 = CGS243 • CGS244	243 244	317	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 79B, 78B, 4C	Right Inboard Position Indicator Flag-Droop = No. 1 and No. 2 Right Inboard Spoilers - (-4.5°)
318	DLL318 = CGS245 + CGS246	245 246	318	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 76B 75B, 4C	Left Outboard Position Indicator Flag-Up = No. 3 or No. 4 Left Outboard Spoilers - > 0°
319	DLL319 = CGS247 • CGS248	247 248	319	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 76B 75B, 4C	Left Outboard Position Indicator Flag-Droop = No. 3 and No. 4 Left Outboard Spoilers - (-4.5°)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1 SHEET 8

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
320	DLL320 = CGS225 + CGS224	224 225	320	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 76C, 75C, 4C	Right Outboard Position Indicator Flag-Up = No. 3 or No. 4 Right Spoilers - > 0°
321	DLL321 = CGS 249 CGS 250	249 250	321	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 82C, 76C, 75C,	Right Outboard Position Indicator Flag-Droop = No. 3 and No. 4 Right Spoilers - (-4.5°)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 2 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
003	Right Main AC Pwr-on-Line	XAS003	AC Power Contactor Assy (66A6K2)	Port FS 360	N/A	Open or Switched 28VDC	K2 APX76/ RAICS K3 LAICS/ CADC INTLK (Aft CKPT Relay Box 793A1)	N/A	03P02	IWSFD Fig. 2 Zone 1A	019 735 029 196 030 517 062 518 063 546 270	Resistor Divider Adapter
004	Left Main AC Pwr-on-Line	XAS004	AC Pwr Contactor Assy (66A6K1)	Port FS 360	N/A	Open or Switched 28VDC	K2 APX76/ RAICS K3 LAICS/ CSDC INTLK (AFT CKPT Relay Box 793A1)	N/A	03P03	IWSFD Fig. 2 Zone 2A	019 735 029 196 030 517 062 518 063 549 270	Resistor Divider Adapter
005	Ground Cooling Pressure Interlock Switch - High	HNS 005	Ground Cooling Pressure Interlock Switch (55S2)	Starboard FS410	Air Pressure Switch Pressure Hi/Lo	Open or switched 28 VDC	K2 APX76/ RAICS K3 LAICS/ CSDC INTLK (Aft CKPT Relay Box 793A1)	Ground Cooling Pressure Interlock Switch (55S2)	04P01	IWSFD Fig. 2 Zone 2A	019 063 029 517 030 518 062	Solid State
026	Horizontal Tail Authority Switch - Open	CFS026	Horizontal Tail Authority Stop Switch (50S1)	STA735 WL164	Limit Switch	Open = 28VDC Open = No Voltage		Horizontal Tail Authority Stop Switch (50S1)	06P19	IWSFD Fig. 2 Zone 38	095 098 096 543	Solid State
027	Wing Sweep Handle Position Switch - Raised 2.5 Inches	CKS027	Throttle Quadrant (711A1)	Pilots Left Side Console FS225	Limit Switch	Raised 2.5 Inches = 28VDC Lowered = Open		Wing Sweep Handle Position Switch	01P06	IWSFD Fig. 2 Zone 20	095 098 096 542 097 543	Resistor Divider Adapter
028	Horizontal Tail Restricted	CFS028	Horizontal Tail Restricted Authority Switch (50S2)	FS735 WL164	Limit Switch	Restricted = 28VDC Unrestricted = Open		Horizontal Tail Restricted Authority Switch (50S2)	06P20	IWSFD Fig.2 Zone 37b	095 098 097 543	Solid State

TABLE I F-14 SCSTEL SIGNAL TRANSDUCERS

FIGURE 2 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
029	Aft Stick Authority Switch-Reduced Authority	CFS029	Aft Stick Authority Switch (50S3)	STA735 WL164	Limit Switch	Reduced Authority = 28VDC Full Authority= Open		Aft Stick Authority Switch (50S5)	06P21	IWSPD Fig.2 Zone 38B	095 098 097 543	Solid State
030	Wing Sweep Handle Position Switch - < 68°	CKS030	Throttle Quadrant (711A1)	Pilots Left Side Console FS225	Limit Switch	< 68° = 28VDC > 68° = Open		Wing Sweep Handle Position Switch	01P07	IWSPD Fig.2 Zone 20B	095 098 097 543	Resistor Divider Adapter
071	Wing Sweep (Test Selector Position)	CKS071	Sys Test -Sys Pwr Panel (790A1)	NFO's Left Knee Panel FS300	11 Position Rotary Switch	Switched 28VDC	K2 Wing Sweep Relay in Sys Test-Sys Pwr Panel (790A1)		03P04	IWSPD Fig.2 Zone 39B	117 118	Solid State
072	Flap Interlock Disengaged	CKS072	Wing Sweep/Flap and Slat Control Box (50A2)	FS540 WL175	Solenoid Driver Contactors	Flap Interlock Disengaged = 28VDC Flap Interlock Disengaged=Open	Same as Item 045	NA	05P02	IWSPD Fig.2 Zone 26A	118	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 2 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
034	Left Aux Flap Retract Switch - RETRACT	CKS034	P/O Left Aux Flap Retract Switch (51S17)	Left Wing Aft FS570 BL160	Limit Switch	Retract = 28VDC Extend = Open	Aux Flap Solenoid K68 (Left Glove Relay Box 773A1)	Left Aux Flap Retract Switch (51S17)	05P03	IWSFD Fig.2 Zone 35C	102	Solid State
035	Right Aux Flap Retract Switch - RETRACT	CKS035	P/O Right Aux Flap Retract Switch (51S18)	Right Wing Aft FS570 BL160	Limit Switch	Retract = 28VDC Extend = Open	Same as Above (034)	Right Aux Flap Retract Switch (51S18)	07P15	IWSFD Fig.2 Zone 34A	102	Solid State
036	Flap Handle - $< 6^{\circ}$	CKS036	Flap 6° Switch (51S19)	Pilots Cockpit FS225	Limit Switch	$< 6^{\circ}$ = 28VDC $> 6^{\circ}$ = Open	Same as Above (034)	Flap 6° Switch (51S19)	01P08	IWSFD Fig.2 Zone 33A	102 103	Solid State
037	Left Slat Asymmetry Switch-Closed	CKS037	Left Slat Asymmetry Switch (51S7)	Left Outboard Wing Slat Drive Shaft, Left Wing Forward FS570 BL340	Rotary Limit Switch	Closed = 28VDC Open = 28VDC Not	a) K86 Flap/Slat Lockout Relay (Left Glove Relay Box 773A1) b) Disable Flap-Slat Drive (28VDC (Flap and Slat Hydraulic Control Valve 51L1)	Left Slat Asymmetry Switch (51S7)	05P04	IWSFD Fig.2 Zone 29A, 39A	104 105	Solid State
038	Right Slat Asymmetry Switch - Closed	CKS038	Right Slat Asymmetry Switch (51S8)	Right Outboard Wing Slat Drive Shaft, Right Wing Forward FS570 BL340	Rotary Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Right Slat Asymmetry Switch (51S8)	07P16	IWSFD Fig.2 Zone 37A, 31A	104 105	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 2 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
039	Left Flap Asymmetry Switch - Closed	CKS039	Left Flap Asymmetry Switch (51S5)	Left Outboard Wing Flap Drive Shaft Left Wing Aft FS570 BL320	Rotary Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Left Outboard Asymmetry Switch (51S5)	05P05	IWSFD Fig.2 Zone 29B, 40A	104 105	Solid State
040	Right Flap Asymmetry Switch - Closed	CKS040	Right Flap Asymmetry Switch (51S6)	Right Outboard Wing Flap Drive Shaft FS625 BL320	Rotary Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Right Flap Asymmetry Switch (51S6)	07P17	IWSFD Fig.2 Zone 38A, 31B	104 105	Solid State
041	Right Flap Overtravel Up Switch - Closed	CKS041	Right Flap Overtravel Up Switch (51S13)	Right Wing Maneuver Flap Actuator #1 FS615 BL200	Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Right Flap Overtravel Up Switch (51S13)	07P18	IWSFD Fig.2 Zone 37B, 31B	104 105	Solid State
042	Right Flap Overtravel Down Switch - Closed	CKS042	Right Flap Overtravel Down Switch (51S14)	Right Wing Maneuver Flap Actuator #1 FS615 BL200	Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Right Flap Overtravel Down Switch (51S14)	07P19	IWSFD Fig.2 Zone 37B, 31B	104 105	Solid State
043	Left Flap Overtravel Up Switch - Closed	CKS043	Left Flap Overtravel Up Switch (51S25)	Left Wing Manuever Flap Actuator #1 FS615 BL200	Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Left Flap Overtravel Up Switch (51S15)	06P22	IWSFD Fig.2 Zone 40A, 29B	104 105	Soldi State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 2 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
044	Left Flap Overtravel Down Switch - Closed	CKS044	Left Flap Overtravel Down Switch (51S16)	Left Wing Maneuver Flap Actuator #1 FS615 BL200	Limit Switch	Closed = 28VDC Open = 28VDC Not	Same as Above (037)	Left Flap Overtravel Down Switch (51S16)	06P23	IWSFD Fig.2 Zone 40B, 29B	104 105	Solid State
045	Wing Sweep Switch - 20°	CKS045	P/O Wing Sweep Switch (51A5	FS 540 WL175	Cam Driven Limit Switch	20° = 28VDC > 20° = Open	K25 Aux Flap Control (Left Glove Relay Box 773A1)	Wing Sweep Switch (51A5)	05P6	IWSFD Fig.2 Zone 24B, 26A	105	Solid State
046	Flap Handle - > 5°	CKS046	Flap Handle Position Switch (P/O Throttle Quadrant 711A1)	Pilots Left Side Console FS225	Handle Limit Switch	> 5° = 28VDC < 5° = Open	Same as Above (045)	Flap Handle Position Switch (P/O Throttle Quadrant 711A1)	01P09	IWSFD Fig.2 Zone 20A, B	105	Resistor Divider Adapter
047	Flap Interlock Engaged	CKS047	Wing Sweep/Flap and Slat Control Box (50A2)	FS540 WL175	Solenoid Driven Contacts	Flap Interlock Engaged = 28VDC Flap Interlock Engaged Not = Open	Same as Above (045)	NA	05P07	IWSFD Fig.2 Zone 26A	105 117	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 2 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
018	DC - 1 Pole	V = 28VDC I = 5 AMP	Wing Flap Glove Vane Controller Test 28VDC	100%			CB27 (5 AMP) R DC Test AMC Bit (36A4)	05Q26	CGL018	IWSFD Fig. 2 Zone 17C	018
019	AC - 1 Pole	V = 115VAC ϕA I = 5 AMP	ADC 115 VAC ϕA	100%*			CB5 (5 AMP) CADC (35A6) (115 VAC) CB55 (5 AMP) Ground Pwr Cooling Intlk (28 VDC) (36A4) K3 LAICS/CADC Intlk (Aft Cockpit Relay Box 793A1) K2 APX76/RAICS (Aft Cockpit Relay Box 793A1)	02Q04	UCL019	IWSFD Fig.2 Zone A1, A2, 9C	019
020	AC - 1 Pole	V = 115VAC ϕC I = 5 AMP	Wing Flap Glove Vane Controller (50A5) Flap 115 VAC ϕC	100%			CB15 (5A) 115 VAC ϕC Glove Vane Contr (35A6)	05Q27	CKL020	IWSFD Fig. 2 Zone 17C	020
021	AC - 1 Pole	V = 115VAC ϕC I = 3 AMP	Wing Flap Glove Vane Controller (50A5) Wing Sweep #1 Pwr Supply 115 VAC ϕC	100%			CB13 (3A) Wing Sweep Drive #1 (35A6)	05Q28	CKL021	IWSFD Fig. 2 Zone 17C	021
022	AC - 1 Pole	V = 115VAC ϕC I = 3 AMP	Wing Flap Glove Vane Controller (50A5) Wing Sweep #2 Pwr Supply 115 VAC ϕC	100%			CB14 (3A) Wing Sweep Drive #2 MANUV CONTR 35A6)	05Q29	CKL022	IWSFD Fig. 2 Zone 17C	022
023	AC - 1 Pole	V = 115VAC ϕB I = 3A	Sweep Indicator (50A6) Pwr Supply #1 & #2	100%			CB23 (3A) Wing Pos. Ind. AC (35A2)	07Q04	CKL023	IWSFD Fig. 2 Zone 21C	023
024	AC - 1 Pole	V = 115VAC ϕB I = 5A	Angle of Attack Filter (45A5)	100%			CB20 (5A) Angle of Attack Ind. AC (35A2)	07Q05	TLL024	IWSFD Fig. 2 Zone 8B	024

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 2 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
025	AC - 1 Pole	V = 115VAC ØB I = 5A	a) Wheels - Flaps Position Indicator (78M1) Flaps Position Indicator b) Flap Position Transmitter (78A1) c) Control Surface Position Indicator (64M1) d) Right Rudder Position Transmitter (64B3) e) Left Rudder Position Transmitter (64B4) f) Right Horizontal Stabilizer Position Transmitter (64B1) g) Left Horizontal Stabilizer Position Transmitter (64B2)				CB15 (5A) Tail/Rudder/ Flap Ind. (35A2)	09Q02 03Q01	CGL025	IWSPD Fig. 2 Zone 30B, 32A IWSPD Fig. 1 Zone 95C, 95A, 95B, 92C	025
095	AC - 1 Pole	V = 115VAC ØA I = 5A	Wing Oversweep Actuator (50A7) 115 VAC ØA				CB2 (7.5A) Wing Pos Ind. DC (36A2) K62 MLG Safety "Q" Left Glove Relay Box	11Q25	GEL095	IWSPD Fig. 2 Zone 1C, 2B, 2C, 3C, 38C, 37C, 35B, 20B	095
096	AC - 1 Pole	V = 115VAC ØB I = 5A	Wing Oversweep Actuator (50A7) 115VAC ØB				K64 Motor Retract Left Glove Relay Box	11Q26	GEL096	Same as Above	096
097	AC - 1 Pole	V - 115VAC ØC I - 5A	Wing Oversweep Actuator (50A7) 115VAC ØB				K63 Motor Extend Left Glove Relay Box Horizontal Tail Authority Stop Switch (50S1)	11Q27	GEL097	Same as Above	097

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 2 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
098	DC - 1 Pole	V = 28VDC I = 7.5A	Wing Oversweep Actuator (50A7) Clutch/Brake Solenoid 28VDC				Horizontal Tail Restricted Authority Switch (50S2) Aft Stick Authority Switch (50S3) K12 MLG Safety "K" Throttle Quadrant (711A1) Wing Sweep Handle Position Switch < 68° and raised 2.5 inches	11Q28	GEL098	Same as Above	098
102	DC - 1 Pole	V = 28VDC	20° Aux Flap/Wing Sweep Interlock Solenoid (Wing Sweep/Flap and Slat Control Box 50A2)				K68 Aux Flap Solenoir Left Glove Relay Box (773A1) CB3 (5A) Aux Flap/Flap Contr (36A2)	11Q18	CKL102	IWSFD Fig. 2 Zones 1C, 24C, 26A, 33A, 34A, 35A, 35C	102
103	< 6° Discrete (Solid State Discrete Driver)	< 6°=28VDC > 6°=Open	AC Power Contactor Assembly (66A6)				N/A - Associated with Item 102 above	04D23	CKL103	IWSFD Fig. 2 Zone 33A	103
104	DC - 1 Pole	V = 28VDC	a) Retract Right Aux Flap (28VDC) Solenoid (Right Auxiliary Flap Actuator 51A6) b) Retract Left Aux Flap (28VDC) Solenoid (Left Auxiliary Flap Actuator 51A7) c) Disable Flap-Slat Drive (28VDC) (Flap and Slat Hydraulic Control Valve 51L1)				K86 Flap/Slat Lockout (Left Glove Relay Box 773A1) K25 Aux Flap Control (Left Glove Relay Box 773A1) CB11 (5A) Flap/Slat Contr Shut Off (36A3)	11Q19	CKL104	IWSFD Fig.2 Zone 34A, 34B, 39B, 1B	104

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 2 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
105	DC - 1 Pole	V = 28VDC	a) Extend Left Aux Flap (28VDC) Solenoid (Left Auxiliary Flap Actuator 51A7) b) Extend Right Aux Flap (28VDC) Solenoid (Right Auxiliary Flap Actuator 51A6)				Same as Above Item 104	11Q20	CKL105	IWSFD Fig. 2 Zone 34A, 34B	105
106	DC - 1 Pole	V = 28VDC	Sweep Indicator (50A6)	100%			*Same CB2 as Item 095, 096, 097, 098	02D12	GEL106	IWSFD Fig. 2 Zone 21B, 1C	106
117	DC - 1 Pole (28VDC Test Lamp Driver)	V = 28VDC	NO GO Test Lamp (Sys. Test - Sys Pwr Panel 790A)				CB32 Gnd Test (36A4) K19 MLG Safety A RGRB (772A1) S1 System Test & S4 System Pwr Pnl P/O S2 (790A1) K2	02D13	MJL117	IWSFD Fig. 2 Zone 39B	117
118	DC - 1 Pole (28VDC Test Lamp Driver)	V = 28VDC	GO Test Lamp (Sys. Test - Sys Pwr Panel 790A1)				Same as MJL117	02D14	MJL118	IWSFD Fig.2 Zone 39B	118
119	DC - 1 Pole	V = 28VDC I = 3A	Wheels - Flaps Position Indicator (78M1)	100%			CB6 (3A) 28VDC Wheel Position Indicator (36A2)	02D15	CGL119	IWSFD Fig. 2 Zone 32A, 1C	119

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 2 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
018	CHD18	NA	018	3	R. Main Bus	IWSFD Fig. 2 Zone 17A	Wing Flap Glove Vane Controller (50A5) Test 28VDC = 28VDC Right Main Bus Energized
019	UCD19 = XAS003 + XAS004 + HNS005	003 004 005	019	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 1A, 2A, 9C	ADC 115VAC ϕA = Right Main Generator On-Line or Left Main Generator On-Line or Ground Cooling Pressure Switch High
020	CKD20	NA	020	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 17C	Wing Flap Glove Vane Controller (50A5) Flap 115VAC ϕC = 115VAC ϕC Essential #2 Bus
021	CKD21	NA	021	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 17C	Wing Flap Glove Vane Controller (50A5) 115VAC ϕC #1 = 115VAC ϕC Essential #2 Bus
022	CKD22	NA	022	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 17C	Wing Flap Glove Vane Controller (50A5) 115VAC ϕC #2 = 115VAC ϕC Essential #2 Bus
023	CKD23	NA	023	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 21C	Wing Sweep Indicator (50A6) 115VAC ϕB = 115VAC ϕB Essential #2 Bus
024	TLD24	NA	024	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 8B	Angle of Attack Filter (45A5) 115VACϕB = 115VAC ϕB Essential #2 Bus
025	CHD25	NA	025	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 30B, 32A	Flaps Position Indicator and Flap Position Transmitter 115VAC ϕB = 115VAC ϕB Essential #2 Bus
095	GED95 = (GDS002 • GDS102 • CFS026 • CKS027) + [(GDS002 • CKS030 • $\overline{CKS027}$) • (CFS028 + CFS029)]	002 102 026 027 028 029 030	095	2	* See Note 1 Ess. No. 2 Bus	IWSFD Fig. 2 Zone 1C, 2B, 2C 3C, 38C, 37C, 35B, 20B	Wing Oversweep Actuator 115VAC ϕA= LMLG Weight On Wheels AND RMLG Weight on Wheels AND Horizontal Tail Authority Stop Switch Open AND Wing Sweep Handle Position Switch Raised 2.5 Inches OR Weight on Wheels AND Wing Sweep Handle Switch < 68° AND Wing Sweep Handle Position Switch Lowered AND Horizontal Tail Restricted Authority Switch Restricted OR Aft Stick Authority Switch Reduced Authority
096	GED96 = GDC002 • GDS102 • CFS026 • CKS027	002 102 026 027	096	2	* See Note 1 ** See Note 2 Ess. No. 2 Bus	Same as Above	Wing Oversweep Actuator 115VAC ϕB (Extend) = Left AND Right MLG Weight on Wheels AND Horizontal Authority Stop Switch Open AND Wing Sweep Handle Position Switch - Raised 2.5 Inches

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 2 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
097	GEL097 = (GDS002 • GDS 102 • CKS030 • CKS027) • (CFS028 + CFS029)	002 102 027 028 029 030	097	2	* See Note 1 ** See Note 2 Ess. No. 2 Bus	IWSFD Fig. 2 Zone 1C, 2B, 2C, 3C, 38C, 37C, 35B, 20B	Wing Oversweep Actuator 115VAC ØC (Retract) = Left AND Right MLG Weight on Wheels AND Wing Sweep Handle Position Switch - < 68° AND Wing Sweep Hand Position Switch Lowered AND Horizontal Tail Authority Switch Restricted OR Aft Stick Authority Switch - Reduced Authority
098	GEL098 = (GDS002 • GDS102 • CPS026 • CKS027) + [(GDS002 • CKS030 • $\overline{CKS027}$) • (CFS028 + CFS029)]	002 102 026 027 028 029 030	098	2	* See Note 1 Ess. No. 2 Bus	Same as Above	Wing Oversweep Actuator 28VDC Clutch/Brake Solenoid = Left AND Right MLG Weight on Wheels AND Horizontal Tail Authority Stop Switch Open AND Wing Sweep Handle Position Switch Raised 2.5 Inches OR Weight on Wheels AND Wing Sweep Handle Switch < 68° AND Wing Sweep Handls Position Switch Lowered AND Horizontal Tail Restricted Authority Switch Restricted OR Aft Stick Authority Switch - Reduced Authority
102	CKL102 = CKS034 • CKS035 • CKS036	034 035 036	102	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zones 1C,24C, 26A,33A,34A, 35A, 35C	Enable > 20° Wing Sweep (28VDC) = Left Aux Flap Retract Switch Retracted AND Right Aux Flap Retract Switch Retracted AND Flap Handle < 6°
103	CKL103 = CKS036	036	103	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 33A	< 6° Discrete to the AC Power Contactor Assembly (66A6) = Flap Handle < 6°
104	CKL104 = CKS041 + CKS042 + CKS043 + CKS044 + (CKS039 • CKS040) + (CKS037 • CKS038)	037 038 039 040 041 042 043 044	104	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zones 24, 20B, 40B,26A,33A, 33B,37A,38A,39A 40A,1C,26B,35C	Retract Right and Left Aux Flaps and Disable Flap - Slat Drive = Right Flap Overtravel Up OR Right Flap Overtravel Down OR Left Flap Overtravel Up OR Left Flap Overtravel Down OR Left AND Right Flap Asymmetry OR Left AND Right Slat Asymmetry

Note 1 These Controllers must be activated & deactivated "Simultaneously" (similar to Mult-Pole Relay function)

Note 2 These Controllers must be wire OR'ED at outputs (equivalent to SP DT CO Relay Function)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 2 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
105	CKL105 = CKS045 • CKS046 • CKS039 • $\overline{\text{CKL104}}$	037 038 039 040 041 042 043 044 045 046 047	105	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zones 24, 20B, 40B,26A,33A, 33B, 37A, 38A, 39A, 40A, 1C, 26B, 35C	Extend Fight and Left Aux Flaps Wing Sweep 20° AND Flap Handle > 5° AND Flap Interlock Engaged AND (Retract Right and Left Aux Flaps and Disable Flap-Slat Drive) NOT
106	GEL106	N/A	106	2	Ess. No. 2 Bus	IWSFD Fig. 1 Zone 1C, 21B	Sweep Indicator 28VDC = 28 VDC ESS. #2 Bus Energized
117	MJL117 = WAS054 • MJS055 • CKS071 • CKS047	047 054 055 071	117	3	R. Main Bus	IWSFD Fig. 2 Zone 39C, 26B, 24B, 1C	Sys Test - Sys Pwr Panel - NO GO Test Lamp is On = Sys Test - Sys Pwr Panel Door Switch Open AND Test Switch Depressed AND Test Selector Switch in the Wing Sweep Position AND Flap Interlock Engaged
118	MJL118 = WAS054 • MJS055 • CKS071 • CKS072	054 055 071 072	118	3	R. Main Bus	IWSFD Fig. 2 Zone 39C, 26B, 24B, 1C	Sys. Test Sys Pwr Panel - GO Test Lamp is On = Sys Test - Sys Pwr Panel Door Switch Open AND Test Switch Depressed AND Test Selector Switch in the Wing Sweep Position AND Flap Interlock Engaged
119	GCL 119	NA	119	2	Ess. No. 2 Bus	IWSFD Fig. 2 Zone 32A, 1C	Wheels - Flaps Position Indicator (28VDC) = 28VDC ESS. #2 Bus Energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
006	Eng/Probes Anti-ice Switch-Oride	HAS006	Ext. Environment Control Panel (792A1)	Pilots Right Side Console FS225	3 Position Toggle Switch	Open or Switched 28VDC	Left Glove Relay Box (773A1) K30 Anti-ice Probe Heater #2 Relay	1 - DPTT Switch	02P07	IWSFD-Fig. 3 Zone 3B	026 027 028 553	Solid State
007	Eng/Probes Anti-ice Switch-Auto	HAS007	Ext. Environment Control Panel (792A1) (See above)	Pilots Right Side Console FS225	3 Position Toggle Switch	Open or Switched 28VDC	Same as above	DPTT Switch	02P08	IWSFD-Fig. 3 Zone 3B	026 027 028	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
048	Exterior Lites - Off	LAS048	Throttle Quadrant (711A1)	Pilots Left Side Console FS225	Toggle Switch	OFF = Open ON = 28VDC	K21- Approach Lites Dim Relay (Right Glove Relay Box 772A1)	Exterior Lites Switch	01P10	IWSFD Fig. 3 Zone 6C	107A,B,C,D 108A,B,C,D 109A,B,C,D 158 thru 167	Solid State
049	Hook Control Handle - down	GGS049	Hook/Gun Panel (706A1)	Pilots Right Console FS225	Toggle Switch	DOWN = 115 VAC ØB UP = 115 VAC ØB	a) AC Flasher (60DS19) b) 26 Volt Auto Transformer (45T1)	Hook Control Handle Switch	02P09	IWSFD Fig. 3 Zone 12B	107A,B,C,D 108A,B,C,D 109A,B,C,D 283 284 297	Solid State
050	Hook Bypass - Carrier	GGS050	Master Lite Control Panel (713A1)	Pilots Right Side Console FS225	Toggle Switch	Carrier = 115 VAC ØB Field - 115 VAC ØB	Same as above 049	Hook Bypass Switch	02P10	IWSFD Fig. 3 Zone 12B	107A,B,C,D 108A,B,C,D 109A,B,C,D	Solid State
051	Arresting Hook - Down	GGS051	Hook Down Switch (4982)	Aft FS 738 WL 125	Limit Switch	Hook Down =GND Not Down = Open	K8 - Hook Down Relay (Right Glove Relay Box 772A1)	Hook Down Switch	07P20	IWSFD Fig. 3 Zone 9B	107A,B,C,D 108A,B,C,D 109A,B,C,D 297	Solid State
052	MLG - Down	GDS052	MLG Handle	Left Vertical Console FS225	Toggle Switch	DOWN = 28VDC UP = OPEN	K6 MLG HDL "D" Relay (Right Glove Relay Box 772A1)	MLG Handle Switch	01P11	IWSFD Fig. 3 Zone 10B	709 059 540 708 264 298 503 539 281 285 287 107A,B,C,D 108A,B,C,D 109A,B,C,D 153, 154, 155, 156, 193, 194, 244, 279, 280	Solid State
Note:	1a) MLG-Down = (Left AND Right MLG Weight on Wheels) OR (Left or Right MLG Weight is not on wheels AND MLG handle down) 1b) GDS052 = (GDS002 • GDS102) + ($\overline{GDS002}$ + $\overline{GDS102}$ • MLG handle down)											

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
052 Note: (cont'd)	2a) MLG - Up = Left or right MLG weight is not on wheels) and MLG handle up 2b) $\overline{GDS052}$ = $\overline{GDS002}$ + GDS102 • MLG handle up 3) When MLG solenoid L1 is energized (left or right $\overline{WOW}$) the down interlock is released also when down lock oride switch is raised											
053	High Approach	LAS053	Angle of Attack Indicator (45A2)	Pilots Left Instrument Panel FS225	N/A	$\overline{High}$ = 26 VAC $\overline{HIGH}$ = OPEN	High Approach Lamp Filaments	N/A	05D02	IWSFD Fig. 3 Zone 8A	107A,B,C,D	External Signal Adapter
054	Door Switch-Open	WAS054	System Test - System Power Panel (790A1)	NFO Left Knee Panel FS 290	Limit Switch	Open = 28 VDC CLOSED = OPEN	System Test Panel	Limit Switch	03P05	IWSFD Fig. 3 Zone 9A	107A,B,C,D 108A,B,C,D 109A,B,C,D 222 564 565 566 563	Solid State
055	Test - Depressed	MJS055	System Test - System Power Panel (790A1)	NFO Left Knee Panel FS290	Push Button Momentary	Depressed = 28 VDC Released = Open	System Test Panel	Push Button	03P06	IWSFD Fig. 3 Zone 9A	107A,B,C,D 108A,B,C,D 109A,B,C,D 708 709 715 721 722 723 724 725 726 564 565 566 568	Solid State
056	* ATTK Selected	LAS056	System Test - System Power Panel (790A1)	NFO Left Knee Panel FS290	P/O 9 Position Rotary	* ATTK = 28 VDC Off = Open	System Test	Rotary	03P07	IWSFD Fig. 2 Zone 9A	107A,B,C,D 108A,B,C,D 109A,B,C,D 222	Solid State
057	Low Approach	LAS057	Angle of Attack Indicator (45A2)	Pilots Left Instrument Panel FS225	N/A	$\overline{DIM}$ = 26 VAC $\overline{DIM}$ = Open	Low Approach Lamp Filaments	N/A	05D03	IWSFD Fig. 3 Zone 8B	108A,B,C,D	External Electronic Adapter (Voltage Sense)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
058	Normal Approach	LAS058	Angle of Attack Indicator (45A2)	Pilots Left Instrument Panel FS225	N/A	NORMAL = 26 VAC $\overline{\text{NORMAL}}$ = Open	Normal Approach Lamp Filaments	N/A	05D04	IWSPD Fig. 3 Zone 8B	109A,B,C,D	External Electronic Adapter (Voltage Sense)
073	LTS	LAS073	Master Test Panel (734A1)	Pilots Right Side Console FS225	12 Position Rotary Switch	LITS = 28 VDC $\overline{\text{LITS}}$ = Open	K13 Warning LITS Test No. 2 Relay		02P11	IWSPD Fig. 3 Zone 6B	120A,B,C,D 121A,B,C,D 122A,B,C,D 504, 569, 570 578 579	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 3 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
026	AC - 1 Pole	V = 115VAC 400 ~ I = 7.5 AMP	a) Angle of Attack Transmitter (45A3) Heaters b) Left Total Temperature Probe Heater (05A2)				CB6 (7.5A) Anl Attk Total Temp Htr (35A4) K29 Left Glove Relay Box (773A1) Anti-ice Probe Htr Relay #1 K17 Left Glove Relay Box (773A1) MLG Safety Relay CB13 (3A) Eng./Probe Anti-ice (36A3) K30 Left Glove Relay Box (773A1) Anti-ice Probe Htr Relay #2	01Q01	HAL026	IWSFD Fig. 3 Zone 3B, 4B, 5A IWSFD Fig. 4 Zone 4B	026

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 3 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
107	1 Pole 26VAC		High Approach Lite Bright (Green)				CB55 (5A) 28 VDC - Ext. Lt Contr (36A2)	03Q39	LAL107	IWSFD Fig. 3	107A, B
108	1 Pole 26 VAC		Low Approach Lite Bright (Red)				CB32 (5A) 28 VDC - GND Test/Mach Lvr Bit (36A4) CB20 (5A) 115 VAC - Angle of Attk Ind. AC (35A2)	03Q40	LAL108	IWSFD Fig. 3	108A, B
109	1 Pole 26 VAC		Normal Approach Lite Bright (Yellow)				CB31 (5A) 28 VDC - Rain Rpl/Anti-ice Contr/ Hk Contr (36A2)	03Q41	LAL109	IWSFD Fig. 3	109A, B
207	1 Pole 26 VAC		High Approach Lite Dim (Green)				K19 MLG Safety "A" WOW Right Glove Relay Box (772A1)		LAL207	IWSFD Fig. 3	207A, B
208	1 Pole 26VAC		Low Approach Lite Dim (Red)				K18 GND Test Right Glove Relay Box (772A1) K8 Hook Down Right Glove Relay Box (772A1)		LAL208	IWSFD Fig. 3	208A, B
209	1 Pole 26 VAC		Normal Approach Lite Dim (Yellow)				K21 Approach Lites Dim Right Glove Relay Box (772A1) AC Flasher (60DS19)		LAL209	IWSFD Fig. 3	209A, B
110	AC - 1 Pole	V = 115 VAC I =	a) Angle of Attack Filter (45A5) b) Angle of Attack (45A2)	100%			CB20 (5A) 115 VAC - Angle of Attk Ind. AC (35A2) Same as Item 107, 108, 109	07Q06	FDL110	IWSFD Fig. 3 Zone 5A, 7A	110

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 3 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
120	DC - 1 Pole (Could be low power lamp driver)	V = 28VDC I =	High Indexer Lite Drive Master Lite Control Panel (713A1)				K13 (Warning lights test No. 2) CB17 (5A) Angle of Attk Ind DC (36A2)	02D16	LAL120	IWSFD Fig. 3 Zone 10C,11C	120
121	DC - 1 Pole (Could be low power lamp driver)	V = 28VDC I =	Low Indexer Lite Drive Master Lite Control Panel (713A1)				Same as above (Item 120)	02D17	LAL121	IWSFD Fig. 3 Zone 10C,11C	121
122	DC - 1 Pole (could be low power lamp driver)	V = 28VDC I =	Normal Indexer Lite Drive Master Lite Control Panel (713A1)				Same as above (Item 120)	02D18	LAL122	IWSFD Fig. 3 Zone 10C,11C	122
123	DC - 1 Pole	V = 28VDC I =	Angle of Attack Indicator (45A2)	100%			CB17 (5A) Angle of Attk Ind DC (36A2) (Same as Item 120)	02D19	FDL123	IWSFD Fig. 3 Zone 7C	123

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
026	HAL026 = HAS006 + HAS007 • $\overline{GDS002}$ • $\overline{GDS102}$	002 006 102 007	026	2	Ess#2	IWSFD Fig. 3 Zone 3B,4B,5A	Angle of Attack Transmitter (45A3) heaters and the left total temperature probe (05A2) heaters are ON - if the engine/probe anti-ice switch is in ORIDE or if in the AUTO position AND left AND right MLG does not have weight on wheels
107A (See note)	LAL107 = [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • GGS051 • LAS053 • LAS048] + ** [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS053 • LAS048] +[GDS002 • ** GDS102 • GDS052 •GGS051 • LAS053 •LAS048 • WAS054 •LAS056 • MJS055(t_n^{t+1})] + [GDS002 • ** GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS053 • LAS048 • WAS054 • LAS056 • MJS055(t_n^{t+1})]	002 048 102 049 050 051 052 053 054 055 056	107	2	Ess #2 ** Latching Test Button Function	IWSFD Fig. 3	High approach lite brite steady = Left OR right MLG weight is not on wheels AND MLG down AND arresting hook down AND high approach detected AND exterior lites off OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND high approach detected AND exterior lites off OR Left AND right MLG weight is on wheels AND MLG down AND arresting hook down AND high approach detected AND exterior lites off AND door switch open AND ≤ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR left AND right MLG weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND high approach detected AND exterior lites off AND door switch open AND ≤ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: Brite Steady - Requires controller on (26 VAC steady) 107A 107A = Brite Steady 107B = Dim Steady 107C = Brite Flash 107D = Dim Flash

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
108A (see Note)	LAL108 = [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • GGS051 • LAS057 • LAS048] + [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS057 • LAS048] + [GDS002 • ** GDS102 • GDS052 • GGS051 • LAS057 • LAS048 • WAS054 • LAS056 • MJS055 (t_n+1)] + [GDS002 • ** GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS057 • LAS048 • WAS054 • LAS056 • MJS055 (t_n+1)]	002 048 102 049 050 051 052 054 055 056 057	108	2	Ess #2 ** Latching test button function	IWSFD Fig. 3	Low approach lite brite steady = Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook down AND high approach detected AND exterior lites off OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND low approach detected AND exterior lites off OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook down AND low approach detected AND exterior lites off AND door switch open AND ⊄ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND low approach detected AND exterior lites off AND door switch open AND ⊄ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: Brite Steady - Requires controller on 108A (26VAC Steady)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
109A (See note)	$LAL109 = \{\overline{GDS002} + \overline{GDS102}) \bullet GDS052 \bullet GGS051 \bullet LAS058 \bullet LAS048\} + \{(\overline{GDS002} + \overline{GDS102}) \bullet GDS052 \bullet \overline{GGS051} \bullet \overline{GGS050} \bullet \overline{GGS049} \bullet LAS058 \bullet LAS048\} + \{GDS002 \bullet$	002 102 048 049 050 051 052 054 055 056 058	109	2	Ess #2	IWSFD Fig. 3	Normal approach lite brite steady = left OR right MLG Weight is not on wheels AND MLG down AND arresting hook down AND normal approach detected AND exterior lites off OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND normal approach detected AND exterior lites off OR
**	$GDS102 \bullet GDS052 \bullet GGS051 \bullet LAS058 \bullet LAS048 \bullet WAS054 \bullet LAS056 \bullet MJS055(t_{n+1})\} + \{GDS002 \bullet$				** Latching Test Button Function		Left AND right MLG Weight is on wheels AND MLG down AND arresting hook down AND normal approach detected and exterior lites off and door switch open AND ∢ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR
**	$GDS102 \bullet GDS052 \bullet \overline{GGS051} \bullet \overline{GGS050} \bullet \overline{GGS049} \bullet \overline{LAS058} \bullet LAS048 \bullet WAS054 \bullet LAS056 \bullet MJS055(t_{n+1})\}$						Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND normal approach detected AND exterior lites off AND door switch open AND ∢ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: Brite Steady - requires controller on 109A (26VAC Steady)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
107B (See note)	LAL107 = [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • LAS053 • LAS048 • GGS050] + [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GSS051}$ • LAS053 • LAS048 • $\overline{GGS050}$ • GGS049] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • LAS053 • LAS048 • GGS050 • WAS054 • LAS056 • MJS055 (t_n+1)] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • LAS053 • LAS048 • $\overline{GGS050}$ • GGS049 • WAS054 • LAS056 • MJS055 (t_n+1)]	002 102 048 049 050 051 052 053 054 055 056	107	2	Ess #2	IWSPD Fig. 3	High approach lite brite flash = Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND high approach detected AND exterior lites off AND carrier is selected OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND high approach detected AND exterior lites off AND field is selected AND hook control handle is down OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND high approach detected AND exterior lites off AND carrier is selected AND door switch open AND ≠ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND high approach detected AND exterior lites off AND field is selected AND hook control handle is down AND door switch open AND ≠ Attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: Brite flash requires SSPC to be turned 107C on for ≈ 0.6 sec off for ≈ 0.2 sec

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 5

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
108B (See note)	LAI108 = [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • LAS057 • LAS048 • GGS050] +[($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • LAS057 • LAS048 • $\overline{GGS050}$ • GGS049] + [GDS002 • • GDS102 • GDS052 • $\overline{GGS051}$ • LAS057 • LAS048 • GGS050 • WAS054 • LAS056 • MJS055 (t_n+1)] + [GDS002 • • GDS102 • GDS052 • $\overline{GGS051}$ • LAS057 • LAS048 • $\overline{GGS050}$ • GGS049 • WAS054 • LAS056 • MJS055(t_n+1)]	002 102 048 049 050 051 052 054 055 056 057	108	2	Ess #2 • Latch Test Button Function	IWSPD Fig. 3	Low approach lite brite flash = left OR right MLG weight is not on wheels AND MLG down AND arresting hook not down AND low approach detected AND exterior lites off AND carrier is selected OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND low approach detected AND exterior lites off AND field is selected AND hook control handle is down OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND low approach detected AND exterior lites off AND carrier is selected AND door switch open AND ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND low approach detected AND exterior lites off AND field is selected AND hook control handle is down AND door switch open and ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: 107C - Brite flash requires SSPC to be turned on for ≈ 0.6 sec off for ≈ 0.2 sec

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 6

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
109B (See note)	LAL109 = [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • LAS058 • LAS048 • GGS050] + [($\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • LAS058 • LAS048 • $\overline{GGS050}$ • GGS049] + [GDS002 •	002 048[102] 049 050 051 052 054 055 056 058	109	2	Ess #2	IWSPD Fig. 3	Normal approach lite brite flash • left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND normal approach detected AND exterior lites off AND carrier is selected OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND normal approach detected AND exterior lites off AND field is selected AND hook control handle is down OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND normal approach detected AND exterior lites off AND carrier is selected AND door switch open AND ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND normal approach detected AND exterior lites off AND field is selected and hook control handle is down AND door switch open AND ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: 107C - Brite Flash requires SSPC to be turned on for ≈ 0.6 sec off for ≈ 0.2 sec
•	GDS102 • GDS052 • $\overline{GGS051}$ • LAS058 • LAS048 • GGS050 • WAS054 • LAS056 • MJS055(T_n+1)] + [GDS002 •				* Latch test button function		
•	GDS102 • GDS052 • $\overline{GSS051}$ • LAS058 • LAS048 • $\overline{GGS050}$ • GGS049 • WAS054 • LAS056 • MJS055(t_n+)]						

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 7

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
207A	LAI207 = [$\overline{GDS002}$ + $\overline{GDS102}$, • GDS052 • GGS051 • LAS053 • $\overline{LAS048}$] + [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS053 • $\overline{LAS048}$] + [GDS002 • ** GDS102 • GDS052 • $\overline{GGS051}$ • LAS053 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)] + [GDS002 • ** GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS053 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)]	002 048 049 050 051 052 053 054 055 056 102	207	2	** Latching Test Button Function	IWSPD Fig. 3	High approach lite dim steady = left OR right MLG Weight is not on wheels AND MLG down AND arresting hook down and high approach detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND high approach detected AND exterior lites on OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook down AND high approach detected AND exterior lites on AND door switch open AND ¢ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND high approach detected AND exterior lites on AND door switch open AND ¢ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 8

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
208A	LAL208 = {$\overline{GDS002}$ + $\overline{GDS002}$ • GDS052 • GG8051 • LAS057 • $\overline{LAS048}$} +{($\overline{GDS022}$ + $\overline{GDS102}$, • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS057 • $\overline{LAS048}$) +[GDS002 • ** GDS102 • GDS052 • GGS051 • LAS057 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)} +[GDS002 • ** GDS102 • GDS052 •$\overline{GGS051}$ • $\overline{GGS050}$ • $\overline{GGS049}$ • LAS057 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)}	002 048 102 049 050 051 052 054 055 056 057	208	2	Ess #2 ** Latching test button function	IWSFD Fig. 3	Low approach lite dim steady = Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook down and low approach detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND low approach detected AND exterior lites on OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook down AND low approach detected AND exterior lites on AND door switch open AND ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND low approach detected AND exterior lites on AND door switch open and ≠ attk selected AND the test buttton is depressed or was depressed when all other conditions were satisfied

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 9

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
209B	$LAL209 = \{\overline{GDS002} + \overline{GDS102}\}$ $GDS052 \bullet GGS051 \bullet LAS058 \bullet \overline{LAS048}\}$ $+\{\overline{GDS002} + \overline{GDS102}) \bullet GDS052 \bullet \overline{GGS051} \bullet \overline{GGS050} \bullet \overline{GGS049} \bullet LAS058 \bullet \overline{LAS048}\}$ $+\{GDS002 \bullet$ ** $GDS102 \bullet GDS052 \bullet GGS051 \bullet LAS058 \bullet \overline{LAS048} \bullet WAS054 \bullet LAS056 \bullet MJS055(t_{n}^{+1})\}$ $+\{GDS002 \bullet$ ** $GDS102 \bullet GDS052 \bullet \overline{GGS051} \bullet \overline{GGS050} \bullet \overline{GGS049} \bullet LAS058 \bullet \overline{GGS048} \bullet WAS054 \bullet LAS056 \bullet MJS055(t_{n}^{+1})\}$	002 048 102 049 050 051 052 054 055 056 058	209	2	Ess #2 ** Latching Test Button Function	IWSPD Fig. 3	Normal approach lite dim steady = Left OR right MLG Weight is not on wheels AND MLG down AND arresting Hook down AND normal approach detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND normal approach detected AND exterior lites on OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook down AND normal approach detected AND exterior lites on AND door switch open AND $\not<$ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook not down AND field is selected AND hook control handle up AND normal approach detected AND exterior lites on AND door switch open AND $\not<$ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 10

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
207B (See note)	LAL207 = [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • GGS050 • LAS053 • $\overline{LAS048}$] +[(GDS002 + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS053 •LAS048] +[GDS002 • * GDS102 • GDS052 • $\overline{GGS051}$ • GGS050 • LAS053 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)] +[GDS002 • * GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS053 • $\overline{LAS048}$ • WAS054 • LAS056 •MJS055(t_n+1)]	002 048 102 049 050 051 052 053 054 055 056	207	2	Ess. 2 ** Latching Test Button Function	IWSPD Fig. 3	High approach lite dim flash = Left OR right weight is not on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND high approach is detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook is not down AND field is selected AND hook control handle is down AND high approach is detected AND exterior lites on OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND high approach is detected AND exterior lites on AND door switch open AND ∠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook is not down AND field is selected AND hook control handle is down AND high approach is detected and exterior lites off AND door switch is open AND ∠ attk is selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: 207B - Dim Flash - requires SSPC to be on for ~ 0.6 sec OFF FOR 0.2 sec

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 11

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
208B (See note)	LAL208 = [$\overline{GDS002}$ + $\overline{GDS102}$, • GDS052 • $\overline{GGS051}$ • GGS050 • LAS057 • $\overline{LAS048}$] + [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS057 • $\overline{LAS048}$] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • GGS050 • LAS057 • $\overline{LAS048}$ • WAS054 • LAS056 •MJS055 (t_n+1)] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS057 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)	002 102 048 049 050 051 052 054 055 056 057	208	2	Ess #2 • Latching Test Button Function	IWSPD Fig. 3	Low approach lite dim flash = Left OR right MLG weight is not on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND low approach is detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook is not down and field is selected and Hook Control handle is down and low approach is detected and exterior lites on OR Left AND right MLG weight is on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND low approach is detected AND exterior lites on AND door switch open AND ≠ attk selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND Right MLG Weight is on wheels AND MLG down AND arresting hook is not down AND field is selected AND hook control handle is down AND low approach is detected AND exterior lites off AND door switch is open AND ≠ attk is selected AND the test button is depressed when all other conditions were satisfied Note: 208B - Dim Flash - Requires SSPC to go on for ≈ 0.6 sec off for ≈ 0.2 sec

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 12

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
209B (See note)	LAI209 = [$\overline{GDS002}$ + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • GGS050 • LAS058 • $\overline{LAS048}$] + [(GDS002 + $\overline{GDS102}$) • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS058 • $\overline{LAS048}$] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • GDS050 • LAS058 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)] + [GDS002 • GDS102 • GDS052 • $\overline{GGS051}$ • $\overline{GGS050}$ • GGS049 • LAS058 • $\overline{LAS048}$ • WAS054 • LAS056 • MJS055(t_n+1)]	002 048 049 050 051 052 102 054 055 056 058	209	2	Ess #2 * Latching Test Button Function	IWSFD Fig. 3	Normal approach lite dim flash = Left OR Right MLG Weight is not on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND normal approach is detected AND exterior lites on OR Left OR right MLG Weight is not on wheels AND MLG down AND arresting hook is not down AND field is selected AND hook control handle is down AND normal approach is detected and exterior lites on OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook is not down AND carrier is selected AND normal approach is detected AND exterior lites on AND door switch open AND $\overline{\text{attk}}$ selected AND the test button is depressed or was depressed when all other conditions were satisfied OR Left AND right MLG Weight is on wheels AND MLG down AND arresting hook is not down AND field is selected AND hook control handle is down AND normal approach is detected AND exterior lites off AND door switch is open AND $\overline{\text{attk}}$ is selected AND the test button is depressed or was depressed when all other conditions were satisfied Note: 209B - Dim Flash - Requires SSFC to go on for ≈ 0.6 sec off for ≈ 0.2 sec

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 13

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
110	FDL 110	NA	110	2	Ess #2	IWSFD Fig. 3 Zone 5A, 7A	115 VAC ØB to angle of attack filter and angle of attack indicator = 115 VAC ØB Ess. #2 Bus energized
120	LAL120 = LAS073 • MJS068 + LAL107	002 048 049 050 051 052 053 054 055 056 068 073 102	120	2	Ess #2	IWSFD Fig. 3 Zone 10, 11	High indexer lite drive = Lts selected on the master test panel AND test selector switch depressed OR (See LAL107A, B, C, & D)
121	LAL121 = LAS073 • MJS068 + LAL108	002 048 049 050 051 052 054 055 056 057 068 073 102	121	2	Ess #2	IWSFD Fig. 3 Zone 10, 11	Low indexer lite drive = Lts selected on the master test panel AND test selector switch depressed OR (See LAL108A, B, C, D,)
122	LAL122 = LAS073 • MJS068 +LAL109	002 048 049 050 051 052 054 055 056 058 068 073 102	122	2	Ess #2	IWSFD Fig. 3	Normal indexer lite drive = Lts selected on the master test panel AND test selector switch depressed OR (See LAL109A, B, C, D)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3 SHEET 14

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
123	FDL123	NA	123	2	Ess #2	IWSFD Fig. 3 Zone 7C	Angle of attack indicator 28 VDC = 28 VDC Ess. No. 2 Bus energized

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 4 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
027	AC - 1 Pole	V = 115VAC	a) Right AICS Total Temperature Probe (32A9) Heater b) Right AICS Angle of Attack Probe (81A4) Heater				CB3 (10A) R-AICS HTR (35A1)	04Q31	HAL027	IWSFD, Fig. 4 Zone 1A, 2A, 3A, 4A	027
028	AC - 1 Pole	V = 115VAC ØB I = 5A	a) Left AICS Angle of Attack Probe (81A3) Heater b) Left AICS Total Temperature Probe (05A2)				CB6 (5A) L-AICS HTR (35A1) CB6 (7.5A) AWL ATTK Total Temp. HTR (35A4)	01Q02	HAL028	IWSFD Fig. 4 Zone 3C	028
029	AC - 1 Pole	V = 115VAC I=5A	Left Air Inlet Control Programmer (32A6) 115 VAC ØC				CB3 (5A) L-AICS (35A6)	01Q24	KAL029	IWSFD Fig. 4 Zone 1C, 2C, 3C, 9C	029
030	AC - 1 Pole	V = 115VAC I = 5A	Right Air Inlet Control Programmer (32A7) 115 VAC ØB				CB2 (5A) R-AICS (35A6)	05Q30	KAL030	IWSFD Fig. 4 Zone 1C, 2C, 3C, 13C	030

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 4 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
027	HAL027 = HAS006 + HAS007 • $\overline{\text{GDS002}}$ + $\overline{\text{GDS102}}$	002 006 102 007	027	3	R. Main	IWSFD, Fig. 4 1A, 2A, 3A, 4A	Right AICS Total Temperature Probe (32A9) Heater and the Right AICS Angle of Attack Probe (81A4) Heater are on if the engine/Probe Anti-ice switch is in ORIDE or if in the Auto Position and Left or Right MLG weight is not on wheels
028	HAL028 = HAS006 + HAS007 • $\overline{\text{GDS002}}$ + $\overline{\text{GDS102}}$	002 006 102 007	028	3	R. Main	IWSFD Fig. 4 1A, 2A, 3A, 4C	Left AICS Total Temperature Probe (05A2) Heater and the Left AICS Angle of Attack Probe (81A3) Heater is on if the Engine/Probe Anti-ice switch is in ORIDE or if in the Auto Position and Left or Right MLG weight is not on wheels
029	KAL029 = XAS003 + XAS004 + HNS005	003 004 005	029	2	Ess. No. 2	IWSFD Fig. 4 1C, 2C, 3C, 9C	Left Air Inlet Control Programmer 115 VAC ØC is on if the Right Main AC PWR is on line or the Left Main AC PWR is on line or the ground cooling pressure interlock switch is high
030	KAL030 = XAS003 + XAS004 + HNS005	003 004 005	030	2	Ess. No. 2	IWSFD Fig. 4 1C, 2C, 3C 13C	Right Air Inlet Control Programmer 115 VAC ØB is on if the Right Main AC PWR is on line or the Left Main AC PWR is on line or the ground cooling pressure interlock switch is high

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 5 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
057	Throttle Mode Switch - Boost/ Auto	QKS057	Inlet Ramps/Eng. Crank/Throttle Control Panel (710A1)	Pilots Left Side Console STA225	Toggle Switch/Relay	Boost/Auto = 115VAC Manual = Open	a) Throttle Control Computer (21A1) b) L. Horiz Stabilizer Pos. XMITR (64B2) c) R. Horiz Stabilizer Pos. XMITR (64B1)	N/A	01P12	IWSFD Fig. 5 Zone 1A	031 113 114 115	Resistor Divider Adapter
059	Auto Initiate (28 VDC)	QKS059	Throttle Control Computer (21A1) (Auto initiate signal)	STA225	N/A	Auto initiate = 28 VDC Auto initiate = 28 VDC	Throttle Control Computer (21A1) (Auto GND INTLK Signal)	N/A	07D01	IWSFD Fig. 5 Zone 5C	031 112 115	External Signal Adapter (28 VDC Voltage Sense)
060	No Friction	QKS060	P/O Throttle Quadrant (711A1) Friction Lock	Pilots Left Side Console STA 225	Limit Switch	No Friction = 28 VDC Friction = Open	Throttle Control Computer (21A1) (Auto GND INTLK Signal)	N/A	01P13	IWSFD Fig. 5 Zone 4C	031 112 115	Resistor Divider Adapter
061	R. Throttle Lever - 8 LBS	QKS061	P/O Throttle Quadrant (711A1) Throttle Lever	Pilots Left Side Console STA225	Limit Switch	Switched 28 VDC	Throttle Control Computer (21A1) (Auto GND INTLK Signal)	N/A	01P14	IWSFD Fig. 5 Zone 4C	031 112 115	Resistor Divider Adapter
062	L. Throttle Lever - 8 LBS	QKS062	P/O Throttle Quadrant (711A1) Throttle Lever	Pilots Left Side Console STA225	Limit Switch	Switched 28 VDC	Throttle Control Computer (21A1) (Auto GND INTLK Signal)	N/A	01P15	IWSFD Fig. 5 Zone 4C	031 112 115	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 5 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
063	6° < MIL Left	QKS063	MIL Limit Switch P/O Left Throttle Control Actuator (21A7)	Pilots Left Side STA225	Limit Switch	6° < MIL = 28VDC MIL Limit = Open	Throttle Control Computer (21A1) (Engage Auto Signal)	N/A	01P16	IWSFD Fig. 5 Zone 3C	031 112 115	Resistor Divider Adapter
064	6° > Idle Left	QKS064	Idle Limit Switch P/O Left Throttle Control Actuator (21A7)	Pilots Left Side Console STA225	Limit Switch	6° > Idle = 28 VDC Idle Limit = Open	Throttle Control Computer (21A1) (Engage Auto Signal)	N/A	01P17	IWSFD Fig. 3 Zone 3C	031 112 115	Resistor Divider Adapter
065	6° > Idle Right	QKS065	Idle Limit Switch P/O Right Throttle Control Actuator (21A7)	Pilots Left Side Console STA225	Limit Switch	6° > Idle = 28 VDC Idle Limit = Open	Throttle Control Computer (21A1) (Engage Auto Signal)	N/A	01P18	IWSFD Fig. 3 Zone 3B	031 112 115	Resistor Divider Adapter
066	6° < MIL Right	QKS066	MIL Unit Switch P/O Right Throttle Control Actuator (21A7)	Pilots Left Side Console STA225	Limit Switch	6° < MIL = 28 VDC MIL Limit = Open	Throttle Control Computer (21A1) (Engage Auto Signal)	N/A	01P19	IWSFD Fig. 3 Zone 3B	031 112 115	Resistor Divider Adapter
067	FLT Gear DN	MJS067	Master Test Panel (734A1)	Pilots Right Side Console STA225	12 Position Rotary Switch with Momentary Push Button	28 VDC Switched	APC Test K6 Relay (Left Glove Relay Box 773A1)	12 Position Rotary with Push Test	02P12	IWSFD Fig. 5 Zone 1C	031 112 115	Solid State
068	Test Selector	MJS068	Master Test Panel (734A1)	Pilots Right Side Console STA225	12 Position Rotary with Push Test	28 VDC Switched	APC Test K6 Relay (Left Glove Relay Box 773A1)	12 Position Rotary with Push Test	02P13	IWSFD Fig. 5 Zone 1C	031 244 721 112 243 722 115 504 723 259 527 724 260 312 725 261 313 726 569 592 587 570 582 578 586 579 585	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 5 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
069	Left Torque Limit Not	QKS069	P/O Left Throttle Control Actuator (21A7)	Pilots Left Side Console STA225	Limit Switch	28 VDC Switched	Throttle Control Computer (21A1)	N/A	01P20	IWSFD Fig. 5 Zone 3C	115 116	Resistor Divider Adapter
070	Right Torque Limit Not	QKS070	P/O Right Throttle Control Actuator (21A7)	Pilots Left Side Console STA225	Limit Switch	28 VDC Switched	Throttle Control Computer (21A1)	N/A	01P21	IWSFD Fig. 5 Zone 3C	115 116	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 5 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
031	AC - 1 Pole	V = 115VAC ϕA I = 5A	a) Throttle Control Computer (21A1) Power Supply 115 VAC ϕA b) Left Horizontal Stabilizer Position Transmitter (64B2) c) Right Horizontal Stabilizer Position Transmitter (64B1)				CB7 (5A) Auto Throttle AC (35A5) Mode Switch - Auto/ Boost - Manual (P/O Inlet Ramps/Eng. Crank Throttle Control Panel 710A1)	01Q14 11Q29	QKL031	IWSFD Fig. 5 Zone 1A, 3A, 3B, 5C, 9C	031
112	DC - 1 Pole (Possibly Solid State Enable Driver)	V = 28 VDC	Engage Auto (28 VDC) Throttle Control Computer (21A1)				MLG HDC C K1 Relay APC Test K6 Relay MLG Safety H K22 Relay (Left Glove Relay Box 773A1)	04D03	QKL112	IWSFD Fig. 5 Zone 2B, 5C	112
113	DC - 1 Pole (Possibly Solid State Enable Driver	V = 28 VDC	Boost Enable (28 VDC) Throttle Control Computer (21A1)				CB45 (3A) 28 VDC - Auto Throt DC (36A4)	04D04	QKL113	IWSFD Fig. 5 Zone 1B, 5B	113
114	DC - 1 Pole (Possibly Solid State Enable Driver)	V = 28 VDC	Throttle Control Computer (21A1) - WOW (28 VDC)				K21 MLG Ssfety E (Left Glove Relay Box 773A1)	04D05	QKL114	IWSFD Fig. 5 Zone 1B, 4A, 5C	114
115	DC - 1 Pole (Possibly Solid State Enable Driver)	V = 28 VDC	Auto Enable (28 VDC) Throttle Control Computer (21A1)					04D06	QKL115	IWSFD Fig. 5 Zone 1B, 2B, 5C	115
116	GND or Open (Solid State Driver)	GND or Open	Auto Ground Interlock P/O Throttle Control Computer Logic (21A1)					04D07	QKL116	IWSFD Fig. 5 Zone 1B, 3B, C, 5C	116

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 5 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
031	QKL031 = QKS017	017	031	3	Left Main	IWSFD Fig. 5 Zone 1, 2, 3, 4, 5C	115 VAC ØA to the Throttle Control Computer and the Left and Right Horizontal Stabilizer Position Transmitter = the Throttle Mode Switch in the Boost/ Auto Position
112	QKL112 = QKS059 • QKS060 • QKS061 • QKS062 • ($\overline{GDS002}$ + $\overline{GDS102}$) + GIS002 • GDS102 • MJS067 • MJS068) • GIS052 • QKS063 • QKS064 • QKS065 • QKS066	002 052 102 059 060 061 063 064 065 066 067 068		2	AFCS	IWSFD Fig. 5 Zone 1, 2, 3, 4 5C	Throttle Control Computer - Engage Auto 28 VDC = Auto Initiate and Throttle Lock-No Friction and R Throttle - 8 LBS and L Throttle - 8 LBS and Left or Right weight is on wheels and Master Test - FLT Gear DN is selected and Master Test - Test Selector is depressed and Depressed and MLG HDL is down and Left Throttle is at 6° < and 6° > Idle and Right Throttle is at 6° > Idle and 6° MIL.
113	QKL113 = QKS017		113	2	AFCS	IWSFD Fig. 5 Zone 1, 5C	Boost enable 28 VDC to Throttle Control Computer = the Throttle Mode Switch in the Boost/Auto Position
114	QKL114 = QKS017 GIS002 • GIS102	002 102 017	114	2	AFCS	IWSFD Fig. 5 Zone 1B, 2B, 4A, 5C	Throttle Control Computer WOW = the Throttle Mode Switch in the Boost/Auto Position and Left and Right MLG Weight is on wheels
115	QKL115 = QKS017 • QKS059 • QKS060 • QKS062 • $\overline{GDS002}$ + $\overline{GDS102}$ + (GDS002 • GDS102 • MJS067 • MJS068 • GDS052 • QKS063 • QKS064 • QKS065 • QKS066 • QKS069 • QKS070)	002 102 017 052 059 060 061 062 063 064 065 066 067 068 069 070	115	2	AFCS	IWSFD Fig. 5 Zone 1B, 2B, 5C	Throttle Control Computer - Auto Enable (28 VDC) = (Throttle Mode Switch in Boost/Auto and Auto initiate and Throttle Lock-No Friction and R. Throttle - 8 LBS and L. Throttle - 8 LBS and (Left or Right weight is not on wheels) or (Left and Right MLG weight is on wheels and Master Test - Flt Gear DN is selected and Master Test - Test Selector is depressed) and MLG HDL is down and Left Throttle is at 6° < MIL and 6° > IDLE and Right Throttle is at 6° > Idle and and 6° < MIL and Left Throttle-Torque Limit not and Right Throttle-Torque Limit not.)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 5 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
116	QKL116 = QKS069 • QKS070	069 070	116	2	AFCS	IWSFD Fig. 5 Zone 1B, 2B, 3C, 5C	Auto Ground Interlock to Throttle Control Computer = Left and Right Throttle-Torque Limit Switch Not

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 6 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
032	AC - 1 Pole	V = 115VAC ØB I = 3 Amp	Mach Lever Control Unit (46A1) Power Supply #1	100%			CB16 (3A) R Fuel Contr/ Mach LVR (35A6)	05Q37	QCL032	IWSFD Fig. 6 Zone 1B, 10C	032
033	AC - 1 Pole	V = 115VAC ØC I = 3 A	Mach Lever Control Unit (46A1) Power Supply #2	100%			CB18 (3A) L Fuel Contr/ Mach LVR (35A6)	05Q38	QCL033	IWSFD Fig. 6 Zone 1B, 10C	033
034	AC - 1 Pole	V = 115VAC ØA I = 5 Amp	a) Right Engine Turbine Temperature Limiter	100%			CB19 (5A) R PH A Test/ Gas Temp LIM (35A1)	09Q03 10Q02	EBL034	IWSFD Fig. 6 Zone 1B, 13C, 17C	034
			b) Left Engine Turbine Temperature Limiter	100%							
			c) See NAVAIR 01-F-14AAA-2-2-9								
035	AC - 1 Pole	V = 115VAC ØB I = 5A	a) Right Engine Turbine Temperature Limiter	100%			CB17 (5A) R PH B Test/ Gas Temp LIM (35A1)	09Q04 10Q03	EBL035	IWSFD Fig. 6 Zone 1C, 13C, 17C	035
			b) Left Engine Turbine Temperature Limiter	100%							
			c) See NAVAIR 01-F-14AAA-2-2-9								
036	AC - 1 Pole	V = 115VAC ØC I = 5A	a) Right Engine Turbine Temperature Limiter	100%			CB13 (5A) R PH C Test/ Gas Temp LIM (35A1)	09Q05 10Q04	EBL036	IWSFD Fig. 6 Zone 1C, 13C, 17C	036
			b) Left Engine Turbine Temperature Limiter	100%							
			c) See NAVAIR 01-F-14AAA-2-2-9								
111	DC - 1 Pole	V = 28 VDC	Mach Lever Control Unit (46A1) - Mach Lever Test 28 VDC	100%			Same as CB32 GND Test/ Mach Lever Bit of Fig. 3	05Q39	MJL111	IWSFD Fig. 6 Zone 1C, 10B, IWSFD A6.3 Zone 4A	111

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 6 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
032	QCL032	N/A	032	2	Ess. No. 2 Bus	IWSFD Fig. 6 Zone 1B, 10C	Mach Lever Control Unit 115VAC ØB Power Supply #1 is = 115VAC ØB essential #2 Bus energized
033	QCL033	N/A	033	2	Ess. No. 2 Bus	IWSFD Fig. 6 Zone 1B, 10C	Mach Lever Control Unit 115VAC ØC Power Supply #2 is = 115VAC ØC essential #2 Bus energized
034	EBL034	N/A	034	3	R. Main Bus	IWSFD Fig. 6 Zone 1B, 13C, 17C	Right and Left Engine Turbine Temperature Limiter 115 VAC ØA is = 115VAC ØA Right Main Bus energized
035	EBL035	N/A	035	3	R. Main Bus	IWSFD Fig. 6 Zone 1C, 13C, 17C	Right and Left Engine Turbine Temperature Limiter 115VAC ØB is = 115 VAC ØB Right Main Bus energized
036	EBL036	N/A	036	3	R. Main Bus	IWSFD Fig. 6 Zone 1C, 13C, 17C	Right and Left Engine Turbine Temperature Limiter 115VAC ØC is = 115VAC ØC Right Main Bus energized
111	MJL111	N/A	111	3	R. Main Bus	IWSFD Fig. 6 Zone 1C, 10B	Mach Lever Test 28VDC = 28VDC Right Main Bus energized.

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 7 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
074	Radar Beacon - Off	TPS074	Radar Beacon Control Panel (19A2)	NFO's Right Side Console STA300	DPTT Toggle Switch	Off = Open On/STDBY = 28VDC	Beacon - Receiver Transmitter (19A1)	N/A	07D02	IWSFD Fig. 7 Zone 5	124	External Signal Adapter
075	ACLS Selected	TPS075	Radar Beacon Control Panel (19A2)	NFO's Right Side Console STA300	TP/T Rotary Switch	ACLS = 28 VDC $\overline{\text{ACLS}}$ = Open	Beacon AUGMENTER (19A4)	N/A	07D03	IWSFD Fig. 7 Zone 5	125	External Signal Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 7 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
037	AC - 1 Pole	V = 115VAC ØA I = 3A	ILS Decoder (86A2)	100%			CB26 (3A) ILS ARA-63 PHA (35A2)	01Q47	RAL037	IWSFD Fig. 7 Zone 1C, 2C	037
038	AC - 1 Pole	V = 115VAC ØB I = 3A	ILS Decoder (86A2)	100%			CB29 (3A) ILS ARA-63 ØB (35A4)	01Q48	RAL038	IWSFD Fig. 7 Zone 1C, 2C	038
039	AC - 1 Pole	V = 115VAC ØC I = 3A	ILS Decoder (86A2)	100%			CB30 (3A) ILS ARA-63 ØC (35A4)	01Q49	RAL039	IWSFD Fig. 7 Zone 1C, 2C	039
040	DC - 1 Pole	V = 28VDC I = 3A	ILS Decoder (86A2)	100%			CB47 (3A) ILS ARA-63 DC (36A21)	04D29	RAL040	IWSFD Fig. 7 Zone 1C, 2C	040
124	DC - 1 Pole	V = 28VDC I = 3 A	Beacon Receiver - Transmitter (19A1)				CB21 (3A) APN-154 (36A21)	01Q15	TPL124	IWSFD Fig. 7 Zone 1C, 5, 7A	124
125	DC - 1 Pole	V = 28VDC	Beacon Augmenter (19A4)				Same as Above (Item 124)	04Q09	TPL125	IWSFD Fig. 7 Zone 1C, 5, 8C	125

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 7 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
037	RAL037	N/A	037	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 2C	* ILS Decoder 115VAC ϕA is = 115VAC ϕA Essential # 2 Bus energized
038	RAL 038	N/A	038	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 2C	* ILS Decoder 115VAC ϕB is = 115VAC ϕB Essential #2 Bus energized
039	RAL039	N/A	039	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 2C	* ILS Decoder 115VAC ϕC is = 115VAC ϕC Essential #2 Bus energized
040	RAL040	N/A	040	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 2C	* ILS Decoder 28VDC is = 28VDC Essential #2 Bus energized * Could Be 4 Pole SSPC
124	TPL124 = $\overline{\text{TPS074}}$	074	124	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 5, 7A	Beacon Receiver - Transmitter 28VDC = Radar Beacon Control Panel PWR Switch not in the Off Position
125	TPL125 = $\overline{\text{TPS074}}$ • TPS075	074 075	125	2	Ess. No. 2 Bus	IWSFD Fig. 7 Zone 1C, 5, 8C	Beacon Augmenter 28VDC = Radar Beacon Control Panel PWR Switch not in the Off Position and ACLS selected

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 8 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
008	Cryptographic Unit - On	RPS008	KY-28 Control Panel (12A2)	NFO Right Side Console STA 300	3-Position Rotary Switch	On = 28 Off = Open	Crytographic Unit (12A1) 28V Power	DPTT Rotary Switch	04P02	IWSFD Fig. 8 Zone 21A	047	Solid State
009	Cryptographic Unit - Relay	RPS009	KY-28 Control Panel (12A2)	NFO Right Side Console STA 300	3-Position Rotary Switch	Relay = GND Relay = Open	Crytographic Unit (12A1) Relay Control	Same as (above)	04P03	IWSFD Fig. 8 Zone 21A	048	Solid State
010	Cryptographic Unit - Plain	RPS010	KY-28 Control Panel (12A2)	NFO Right Side Console STA 300	SPDT Toggle Switch	Plain = 28VDC Cipher = GND	Crytographic Unit (12A1) Plain/Cipher Control	SPDT Toggle Switch	04P04	IWSFD Fig. 8 Zone 21A	049	Solid State
011	Cryptographic Unit - Zeroize	RPS011	KY-28 Control Panel (12A2)	NFO Right Side Console STA 300	Push Button Latching	Zeroize = +28VDC Zeroize = Open	Crytographic Unit (12A1) Zeroize/ Zeroize Control	Push Button Momentary	04P05	IWSFD Fig. 8 Zone 21A	050	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 8 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
041	DC - 1 Pole	V = 28VDC I = 7.5A	1) Main UHF Antenna Switch (15S1) 2) Main UHF Receiver-Transmitter (15A3)	100% 100%			CB13 (7.5A) UHF COMM ANT (36A1)	04Q32 01Q51	RULO41	IWSFD Fig. 8 Zone 1A, 11C, 23B	041
042	DC	V = 28VDC I = 3A	1) Main UHF Antenna Selector (15A4) 2) Pilot Comm/NAV CMD Panel (721A1) 3) Cockpit Relay Box (757A1)	100% 100% 100%			CB5 (3A) UHF Cont (36A1)	04Q33	RULO42	IWSFD Fig. 8 Zone 1A, 9C, 10C, 12C	042
043	DC	V = 28VDC I = 5A	1) NFO UHF Remote Indicator (15A6) 2) Pilot UHF Remote Indicator (15A5)	100% 100%			CB27 (5A) ID758 (36A1)	02D23	RULO43	IWSFD Fig. 8 Zone 1A, 7C, 10B	043
044	DC	V = 28VDC I = 3A	Pilot ICS Control Panel (08A1)	100%			CB1 (3A) Pilot ICS (36A1)	03Q08	RZLO44	IWSFD Fig. 8 1A, 14C	044
045	DC	V = 28VDC I = 3A	NFO ICS Control Panel (08A2)	100%			CB2 (3A) NFO ICS (36A1)	03Q09	RZLO45	IWSFD Fig. 8 Zone 1A, 15B	045
046	DC	V = 28VDC I = 3A	1) Amplifier - Relay Assembly (04A1) 2) UHF Auxiliary Receiver (16A1)	100%			CB28 (3A) ARA-50/ARR-69 (36A2)	01Q50	RDLO46	IWSFD Fig. 8 Zone 1B, 19B, 21B	046
047	DC - 1 Pole	V = 28VDC I = 5 Amp	Crytographic Unit (12A1) On/Off Control		1.2 Amp		CB29 (5A) Juliet 28 (36A2)	04Q34	RPLO47	IWSFD Fig. 8 Zone 22A, B	047
048	Solid State Enable Signal Driver	GND or Open	Crytographic Unit (12A1) (Relay Control)				See Table 1 Item 009	06D01	RPLO48	IWSFD Fig. 8 Zone 22A, B	048

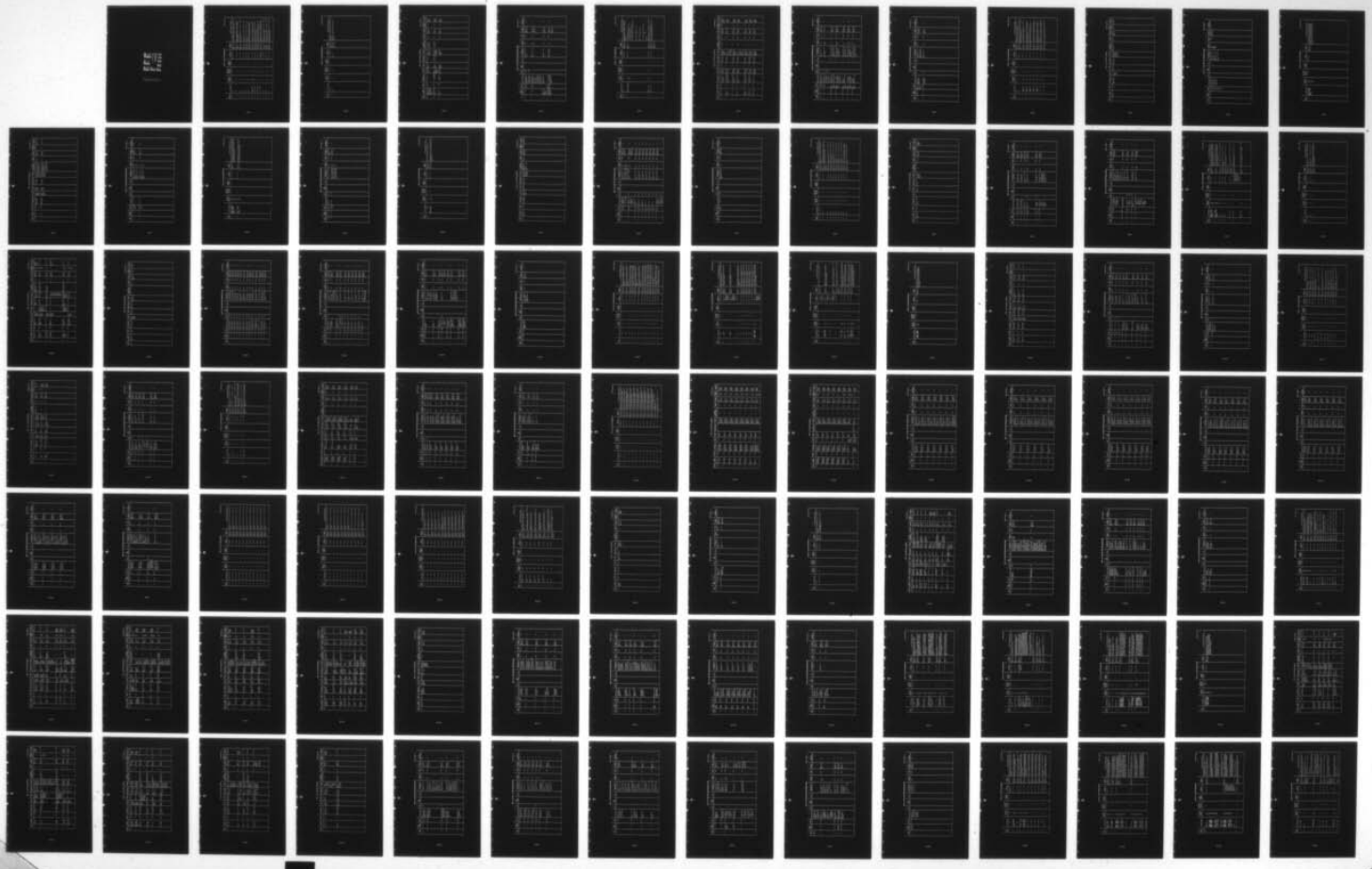
TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 8 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
049	Solid State Relay Driver Signal	28VDC or GND	Crytographic Unit (12A1) (Plain/Cipher Select)		250 MA Indictive		See Table 1 Item 010	06D02	RPL049	IWSFD Fig. 8 Zone 22A, B	049
050	Solid State Enable Signal Driver	28VDC Momentary or GND	Crytographic Unit (12A1) (Zeroize)		0.6 MA		See Table 1 Item 011	04Q35	RPL050	IWSFD Fig. 8 Zone 22A, B	050
051	AC - 1 Pole Could be 3 Pole See 052 and 053	V = 115VAC ØA I = 3A	Main UHF Receiver - Transmitter (15A3)	100%			CB12 (3A) UHF COMM ØA (35A3)	04Q36	RJL051	IWSFD Fig. 8 Zone 1B, 23B	051
052	AC - 1 Pole See Item 051	V = 115VAC I = 3A	Main UHF Receiver - Transmitter (15A3)	100%			CB8 (3A) UHF COMM ØB (35A3)	04Q37	RJL052	IWSFD Fig. 8 Zone 1B, 23B	052
053	AC - 1 Pole See Item 051	V = 115VAC ØC I = 3A	Main UHF Receiver - Transmitter (15A3)	100%			CB5 (3A) UHF COMM ØC (35A3)	04Q38	RJL053	IWSFD Fig. 8 Zone 1B, 23B	053
054	AC - 1 Pole	V = 115VAC I = 3A	Amplifier - Relay Assembly (04A1)	100%			CB6(3A) AN/ARA - 50 (35A2)	01Q52	RJL054	IWSFD Fig. 8 Zone 1C, 19B	054
055	AC - 1 Pole	V = 26VAC I = 3A	1) UHF/ADF Antenna (04E1) 2) CSDC (07A1)	100% 100%			CB2 (3A) AN/ARA - 48 ANT (35A4)	01Q07 03Q33	RJL055	IWSFD Fig. 8 Zone 1C, 17B, 19B	055

AD-A047 860 ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES) DEFINITION AND PROTOTYPE DESIG..(U) GRUMMAN AEROSPACE CORP BETHPAGE N Y G COTTER ET AL. JUL 76 2/4

UNCLASSIFIED NADC-76194-30-VOL-2 N62269-75-C-0392 F/G 9/3 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 8 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
041	RPL041	N/A	041	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 1A, 11C, 23B	Main UHF Antenna Switch and Receiver - Transmitter 28 VDC is - 28VDC Essential Bus #1 energized
042	RUL042	N/A	042	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 1A, 9C, 10C, 12	Main UHF Antenna Selector, and Pilot COM/NAV CMD Panel, and Cockpit Relay Box, 28VDC - 28VDC Ess. Bus #1 energized
043	RUL043	N/A	043	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 1A, 7C, 10A	NFO & Pilots UHF Remote indicator 28VDC - 28VDC Ess. Bus #1 energized
044	RZL044	N/A	044	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 1A, 14C	Pilot ICS Control Panel 28VDC - 28VDC Ess. Bus #1 energized
045	RZL045	N/A	045	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 1A, 15B	NFO ICS Control Panel 28VDC - 28VDC Ess. Bus #1 energized
046	RDL046	N/A	046	2	Ess. No. 2 Bus	IWSFD Fig. 8 Zone 1B, 19B, 20B	ADF Amplifier Relay Assembly and UHF Auxiliary Receiver 28VDC - 28VDC Ess. Bus #2 energized
047	RPL047 = RPS008 + RPS009	008 009	047	2	Ess. No. 2 Bus	IWSFD Fig. 8 Zone 21A, 22A	Crytographic Unit is Powered On if On or Relay Control Panel Switch Positions are selected
048	RPL048 = RPS009	009	048	2	Ess. No. 2 Bus	IWSFD Fig. 8 Zone 21A, 22A	Crytographic Unit is enabled if Relay Position is selected on the Control Panel
049	RPL049 = RPS010	010	049	2	Ess. No. 2 Bus	IWSFD Fig. 8 Zone 21A, 22A	Crytographic Unit Plan Mode is enabled if Plain Position is selected on the Control Panel
050	RPL050 = RPS011	011	050	2	a) Momentary b) Ess. No. 2 Bus	IWSFD Fig. 8 Zone 21A, 22A	Crytographic Unit Zeroize is enabled Momentarily if Zeroize Push Button is depressed on the Control Panel
051	RUL051	N/A	051	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 23B	Main UHF Receiver - Transmitter 115VAC ϕA - 115VAC ϕA essential Bus #1 energized
052	RUL053	N/A	052	1	Ess. No. 1 Bus	IWSFD Fig. 8 ZONE 23B	Main UHF Receiver - Transmitter 115VAC ϕB - 115VAC ϕB essential Bus #1 energized
053	RUL053	N/A	053	1	Ess. No. 1 Bus	IWSFD Fig. 8 Zone 23B	Main UHF Receiver -Transmitter 115VAC ϕC - 115VAC ϕC essential Bus #1 energized

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 8 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
054	RUL054	N/A	054	2	Ess. No. 2 Bus	IWSFD Fig. 8 Zone 1C, 19B	Amplifier-Relay Assembly 115VAC = 115VAC Ess. Bus #2 energized
055	RUL055	N/A	055	2	NAV Bus	IWSFD Fig. 8 Zone 1C, 17B, 19B	UHF/ADF Antenna and CSDC 26VAC = 26VAC NAV Bus energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 9 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
012	IFF Enable (28VDC From AN/AWG9 to Computer K52 Right Glove Relay Box)	UCS012	AN/AWG9	Starboard Side STA 325	28VDC Sensing Circuit	28VDC/Open	K52 Computer Relay Right Glove Box	K52 Computer Relay Right Glove Box	07D0A	IWSFD Fig. 9 Zone 3B	057	External Signal Adapter
013	Pilot Ejection Switch - Normal	WFS013	Pilot Ejection Switch (0982)	Pilots Left Vertical Console STA225	Squib Actuated Switch	Normal - Open Eject - 28VDC	K39 Relay Zeroize #2 Left Glove Relay Box	Pilot Ejection Switch (0982)	05D05	IWSFD Fig. 9 Zone 1B	058	Resistor Divided Adapter
014	Mode 4 Code Zeroize	SXS014	IFF Transponder	Port Side STA345	IFF Transponder Discrete		Interrogator Computer (10A5)		05D06	IWSFD Fig. 9 Zone 1C	058	External Signal Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 9 SHEET 1

1	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
056	AC - 1 Pole	V = 115VAC ϕC I = 3A	1) Interrogator Switch-Amplifier (10A3)	100%			CB8 (3A) IFF A/A AC (35A5)	01Q21	SXL056	IWSFD Fig. 9 Zone 3A, 3B, 13A	056
			2) Interrogator Receiver - Transmitter (10A1)	100%							
057	DC - 1 Pole	V = 28VDC I = 3A	1) Interrogator Switch Amplifier (10A3)				CB20 (3A) IFF A/A DC (36A4)	02D24 01Q53	SXL057	IWSFD Fig. 9 Zone 1A, 3B, 3C, 4B, 7C, 9B, 13B	057
			2) AAI Control Panel (10A4)								
			3) Interrogator Synchronizer (10A2)								
			4) Interrogator Receiver - Transmitter (10A1)								
058	Solid State Mode 4 Code Zeroize Generator Sig. Char.		Interrogator Computer (10A5)				CB6 (3A) APX 72 DC (36A)	04Q39	SXL058	IWSFD Fig. 9 Zone 1B, 1C, 2C, 7B	058
059	Solid State Enable Signal (MLG Handle Interlock)	GND/Open GND = DWN Open = Up	a) IFF Interrogator				CB5 (5A) MLG Handle RLY No. 1 (36A2)	06D03	GJL059	IWSFD Fig. 9 Zone 1C, 2C 7B IWSFD Fig. 10 Zone 3C, 11C	059
			b) Cypto Computer (09A5) (MLG Handle Interlock)								

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 9 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
056	SXL056	N/A	056	3	Left Main Bus	IWSFD Fig. 9 Zone 1A, 3B, 13A	Interrogator Switch Amplifier and Interrogator Receiver 115VAC ϕC = 115VAC ϕC Left Main Bus energized
057	SXL057 = (XAS003 + XAS004 + HNS005)*UCS012	003 004 005 012	057	3	Left Main Bus	IWSFD Fig. 9 Zone 1, 2	28VDC is Applied to the: 1) Interrogator Switch Amplifier (10A3) 2) AAI Control Panel (10A4) 3) Interrogator Schnchronizer (10A2) 4) Interrogator Receiver - Transmitter (10A1) IF (Right Main Generator is On Line OR Left Main Generator is On Line OR Ground Cooling Pressure Switch is High) AND IFF ENABLE
058	SXL058 = WFS013 • SXS014	013 014	058	1	Ess. No. 1 Bus	IWSFD Fig. 9 Zone 1C, 2C, 7B	Mode 4 Core Zeroize = Pilot Ejection Switch Normal and Mode 4 Code Zeroize Signal
059	GJL059 = GDS052	052	059	2	Ess. No. 2 Bus	IWSFD Fig. 9 Zone 1C, 2C, 7B IWSFD Fig. 10 Zone 3C, 11C	IFF Interrogator and Cypto Computer MLG Handle Interlock = Landing Gear Handle Down

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 10 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
282	Mode 1 - Enable	SXS282	IFF Control Panel (09A1) (Mode 1 Enable GND)	NFO Right Side Console FS300	N/A	GND = Enable Open = Disable	Transponder Receiver Transmitter (09A2)	N/A	07D05	IWSFD Fig. 10 Zone 8C	382	External Signal Adapter
283	Manual IFF - Emergency - Enable	SXS283	IFF Control Panel (09A1) (Manual IFF Emergency Control GND)	NFO Right Side Console FS300	N/A	GND = Enable Open = Disable	a) CSDC (07A1) b) Transponder Receiver Transmitter (09A2)	N/A	07D06	IWSFD Fig. 10 Zone 8A	537	External Signal Adapter
284	Mode 2 - Enable	SXS284	IFF Control Panel (09A1) (Mode 2 Enable)	NFO Right Side Console FS300	N/A	GND = Enable Open = Disable	Transponder Receiver Transmitter (09A2)	N/A	07D07	IWSFD Fig. 10 Zone 8B	538	External Signal Adapter
285	Mode 3A - Enable	SXS285	IFF Control Panel (09A1) (Mode 3A Enable)	NFO Right Side Console FS300	N/A	GND = Enable Open = Disable	a) CSDC (07A1) b) Transponder Receiver Transmitter (09A2)	N/A	07D08	IWSFD Fig. 10 Zone 8B	398	External Signal Adapter
286	Sensitivity Control - Normal	SXS286	IFF Control Panel (09A1) Sensitivity Control)	NFO Right Side Console FS300	N/A	GND = Normal Open = Low	Transponder Receiver Transmitter (09A2)	N/A	07D09	IWSFD Fig. 10 Zone 8A	399	External Signal Adapter
287	Standby Control - Operating	SXS287	IFF Control Panel (09A1) (Standby Control)	NFO Right Side Console FS300	N/A	GND = Operating Open = Standby	Transponder Receiver Transmitter (09A2)	N/A	07D10	IWSFD Fig. 10 Zone 8A	400	External Signal Adapter
288	PWR Relay Control - Enable	SXS288	IFF Control Panel (09A1)	NFO Right Side Console FS300	N/A	Enable = GND Disable = Open	Transponder Receiver Transmitter (09A2)	N/A	07D11	IWSFD Fig. 10 Zone 8A	401	External Signal Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 10 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
060	AC - 1 Pole	V = 115VAC ØB I = 3A	Transponder Receiver Transmitter (09A2)	100%			CB1 (3A) APX-72 AC (35A3)	01Q54	SXL060	IMSFD Fig. 1C Zone 1B, 22C	060
061	DC - 1 Pole	V = 28VDC I = 3A	1) Transponder Test Set (09A3)	100%			CB6 (3A) APX-72 Test Set (36A4)	02D25 01Q55	SXL061	IMSFD Fig. 1C	061
			2) ADC Switching Unit (20A4)	100%							
			3) 1FF Control Panel (09A1)	100%							
382	Enable Driver	GND = Enable Open = Disable	Transponder - Receiver Transmitter (09A2) (Mode 1 Enable GND)			N/A	CB6 (3A) APX-72 DC(36A1) P/O K39 Zeroize No. 2 (Right Glove Relay Box 772A1)	0AD30	SXL382	IMSFD Fig. 1C Zone 22B, 8B 3C, 1C	382
537	Enable Driver	GND = Enable Open = Disable	a) CSDC (07A1) b) Transponder Receiver - Transmitter (09A2) (1FF Emergency Control)			N/A	CB6 (3A) APX-72 DC (36A1) P/O K39 Zeroize No. 2 (Right Glove Relay Box 772A1)	0AD24 0AD31	SXL537	IMSFD Fig. 1C Zone 22B, 11A 8A, 3C, 1C	537
538	Enable Driver	GND = Enable Open = Disable	Transponder Receiver Transmitter (09A2)			N/A	CB6 (3A) APX-72 DC (36A1) P/O K38 Zeroize No. 1 (Left Glove Relay Box 773A1)	0AD32	SXL538	IMSFD Fig. 1C Zone 8B, 22B, 3C, 1C	538
398	Enable Driver	GND = Enable Open = Disable	a) CSDC (07A1) b) Transponder Receiver Transmitter (09A2)			N/A	CB6 (3A) APX-72 DC (36A1) P/O K38 Zeroize No. 1 (Left Glove Relay Box 773A1)	0AD25 0AD33	SXL398	IMSFD Fig. 1C Zone 22B, 8B 3C, 1C	398
399	Enable Driver	GND = Normal Open = Low	Transponder Receiver Transmitter (09A2)			N/A	CB6(3A) APX-72 DC (36A1) P/O K38 Zeroize No. 1 (Left Glove Relay Box 773A1)	0AD34	SXL399	IMSFD Fig. 1C Zone 22B, 8A 3C, 1C	399

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 10 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
400	Enable Driver	GND = Operating Open = Standby	Transponder Receiver Transmitter (09A2)			N/A	CB6 (3A) APX-72 DC (36A1) P/O K38 Zeroize No. 1 (Left Glove Relay Box 773A1)	04D35	SX1A00	IWSFD Fig. 10 Zone 22B, 8A, 3C, 1C	400
401	DC - 1 Pole	V = 28VDC	Transponder Receiver Transmitter (09A2)	100%			CB6 (3A) APX-72 DC (36A1)	01Q56	SX1A01	IWSFD Fig. 10 Zone 1C, 22C	401

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 10 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
060	SXL060	N/A	060	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 1B, 22C	Transponder Receiver - Transmitter 115VAC ϕB = 115VAC ϕB essential #1 Bus energized
061	SXL061	N/A	061	3	Left Main Bus	IWSFD Fig. 10 Zone 1B, 5C, 3B 4B	28VDC is applied to the Transponder Test Set and AIC Switching Unit and IFF Control Panel if the 28VDC Left Main Bus is energized
382	SXL382 = SXS282 + $\overline{\text{WPS013}}$	013 282	382	3	Left Main Bus	IWSFD Fig. 10 Zone 22B, 8B, 3C, 1C	Transponder Receiver Transmitter - Mode 1 Enable = Mode 1-Enable or Pilot Eject-Eject
537	SXL537 = SXS283 + $\overline{\text{WPS013}}$	013 283	537	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 22B, 11A, 8A, 3C, 1C	CSDC and Transponder Receiver Transmitter - IFF Emergency Control = Manual IFF Emergency-Enable or Pilot Eject-Eject
538	SXL538 = SXS284 + $\overline{\text{WPS013}}$	013 284	538	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 22B, 8B, 3C 1C	Transponder Receiver Transmitter - Mode 2 Enable = Mode 2 - Enable or Pilot Eject-Eject
398	SXL398 = SXS285 + $\overline{\text{WPS013}}$	013 285	398	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 22B, 8B, 3C, 1C	CSDC and Transponder Receiver Transmitter - Mode 3A Enable = Mode 3A - Enable or Pilot Eject-Eject
399	SXL399 = SXS286 + $\overline{\text{WPS013}}$	013 286	399	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 22B, 8A, 3C, 1C	Transponder Receiver Transmitter - Sinsitivity Control = Sensitivity Control - Normal or Pilot Eject-Eject
400	SXL400 = SXS287	013 287	400	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 22B, 8A, 3C, 1C	Transponder Receiver Transmitter - Standby Control = Standby Control - Operating or Pilot Eject-Eject
401	AXL401 = SXS288	288	401	1	Ess. No. 1 Bus	IWSFD Fig. 10 Zone 1C, 8A 22C	Transponder Receiver Transmitter - 28VDC and Power Control = PWR Relay Control - Enable

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 11 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
016	HSD/ECMD - ON	TES016	Displays Control Panel (709A1)	Pilots Right Vertical Console STA225	Toggle Switch	On = Open Off = 28VDC	HSP/ECM Display Interlock Relay (Aft Cockpit Relay Box 793A1)	HSD/EMD Switch	O2P14	IWSFD Fig. 11 Zone 1, 2, 3	O62	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 11 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
062	AC - 3 Pole	V = 115VAC ØA 115VAC ØB 115VAC ØC I = (ØA) = 7.5A I = (ØB) = 7.5A I = (ØC) = 7.5A	a) Processor (84A1) (ØA, ØB, ØC) b) HSD Indicator (84A2) (ØA) c) ECM Display Indicator (84A3) (ØB)				CB55 (7.5A) HSD ECMD ØA (35A5) CB52 (7.5A) HSD ECMD ØB (35A5) CB49 (7.5A) HSD ECMD ØC (35A5) CB63 (5A) Display Power (36A2)	02Q15 02Q16 02Q17 07Q12 07Q13 07Q14	TEL062	IMSFD Fig. 11 Zone 1, 2, 3, 17C, 27C, 29C	062

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 11 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
062	TEL062 = TES016 • (GDS002 + GDS102 + HNS005 + XAS003 + XAS004)	016 002 102 005 003 004	062	3	Left Main Bus	1WSFD Fig. 11 Zone 1, 2, 3, 17C, 27C, 29C	Processor 115VAC ϕA, ϕB and ϕC and HSD Indicator 115VAC ϕA and ECM Display Indicator 115VAC ϕB - HSD/ECMD Switch On and Left or Right MLG Weight is not on wheels or Ground Cooling Switch High or Right Main AC Power On-Line or Left Main Power on Line)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 12 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
018	VDI-On	FES018	Displays Control Panel (709A1)	Pilots Right Vertical Console STA225	Toggle Switch (SPDT)	ON = Open Off = 28VDC	VDI Interlock Relay (AFT Cockpit Relay Box 793A1)	VDI On/Off Switch VDI Interlock Relay (AFT Cockpit Relay Box 793A1)	02P15	IWSFD Fig. 12 Zone 3	063	Solid State
019	HUD-ON	FES019	Displays Control Panel (709A1)	Pilots Right Vertical Console STA225	Toggle Switch (SPDT)	On = Open Off = 28VDC	HUD Interlock Relay (AFT Cockpit Relay Box 793A1)	HUD On/Off Switch HUD Interlock Relay (AFT Cockpit Relay Box 793A1) AFX 76 RAICS Interlock Relay (AFT Cockpit Relay Box 793A1)	02P16	IWSFD Fig. 12 Zone 3	064	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 12 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
063	AC - 3 Pole	V = 115VAC ØA, B&C I = 7.5A each	ADI Converter (26A2)				CB11 (7.5A) VDI PH A (35A2) CB25 (7.5A) VDI PH B (35A4) CB15 (7.5A) VDI PH C (35A4)	01Q60 01Q61 01Q62	FEL063	IWSFD Fig. 12 Zone 1	063
064	AC - 3 Pole	V = 115VAC ØA, B,C I = 7.5A each	ADI Converter (26A2)				CB8 (7.5A) HUD PH A (35A2) CB22 (7.5A) HUD PH B (35A4) CB13 (7.5A) HUD PH C (35A4)	01Q63 02Q01 02Q02	FEL064	IWSFD Fig. 12 Zone 1	064

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 12 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
063	FEL063 = FES018 • (XAS003 + XAS004 + $\overline{\text{HNS005}}$ + $\overline{\text{GDS002}}$ + GDS102	018 003 004 005 002 102	063	2	Ess. No. 2 Bus	IWSFD Fig. 12 Zone 1, 2, 3, 4, 25C	VDI 115VDC ϕA, B and C On = VDI Switch on and (Right Main AC PWR on Line or Left Main AC PWR on Line or Ground Cooling Pressure Switch High or Left or Right MLG Weight is not on Wheels
064	FEL064 = FES019 • (XAS003 + XAS004 + HNS005)	019 003 004 005	064	2	Ess. No. 2 Bus	IWSFD Fig. 12 Zone 1, 2, 3, 4, 25C	HUD 115VAC ϕA, B and C On = HUD Switch on and (Right Main AC PWR on Line or Left Main AC PWR on Line or Ground Cooling Pressure Switch High)

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 13 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
065	DC - 1 Pole	V = 28VDC I = 3A	CSDC (07A1)	100%			CB27 (3A) CSDC (36A2)	01Q29	UCL065	IWSFD Fig. 13 1A, 15A	065
066	AC - 3 Pole	V = 115VAC ϕA, B, C	CSDC (07A1)	100%			CB10 (3A) CSDC ϕA (35A2 CB24 (3A) CSDC ϕB (35A4 CB14 (3A) CSDC ϕC (35A4 K1 CSDC Interlock (AFT Cockpit Relay Box 793A1	01Q30 01Q31 01Q32	UCL066	IWSFD Fig. 13 1C, 2, 15A	066

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 13 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
065	UCL065	N/A	065	2	Ess. No. 2 Bus	IWSFD Fig. 13 Zone 1A, 15A	CSDC +28VDC Essential #2 Bus Energized
066	UCL066 = XAS003 + XAS004 + HNS005	003 004 005	066	2	Ess. No. 2 Bus	IWSFD Fig. 13 Zone 1, 2, 15A	CSDC 115VAC ØA, B and C = Right Main AC PWR On Line or Left Main AC PWR On Line or Ground Cooling Pressure Switch High

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 14 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
020	GYROS/WSHLD HT - On	RNS020	SYS Test-SYS PWR Panel (790A1)	NFO-Left Knee Panel STA300	Toggle Switch	On = Open Off = +28VDC	GYRO Power Off Relay K36 (Right Glove Relay Box 772A1)	GYROS/WSHLD HT Switch GYRO Power of Relay K36	03P08	IWSFD Fig. 13 Zone 3C	067	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 14 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
067	AC - 3 Pole	V = 115VAC ØA, B, C I = 5A each	1) ØA, ØB and ØC - AHRS Amplifier (02AR1) 2) ØA - CSDC - AHRS SYNC REF (07A1)				CB3 (5A) GYRO PWR (36A4) CB9 (5A) AHRS ØA (35A2) CB23 (5A) AHRS ØB (35A4) CB12 (5A) AHRS ØC (35A4)	04Q40 01Q39 01Q40 01Q41	RNL067	IWSFD Fig. 14 Zone 1, 2B, 2C, 3C, 6C, 8C, 26A	067
068	AC - 1 Pole	V = 115VAC ØA I = 7.5A	1) AHRS Amplifiers (02AR1) 2) ARN-84 TACAN Receiver mitter Mount (01A1)	100%			CB7 (7½A) Tacan ARN-84 (35A2)	01Q08	RNL068	IWSFD Fig. 14 Zone 1A, 6C IWSFD Fig. 15 Zone 1A, 9B	068
069	AC - 1 Pole	V = 115VAC ØA I = 5A	IMU PWR Supply (06A2)	100%			CB12 (5A) NAV PWR PH A (35A5)	04Q10	RNL069	IWSFD Fig. 14 Zone 1A, 10B	069
070	AC - 1 Pole	V = 115VAC ØB I = 5A	IMU PWR Supply (06A2)	100%			CB10 (5A) NAV PWR SUP PH B (35A5)	04Q11	RNL070	IWSFD Fig. 14 Zone 1B, 10B	070
071	AC - 1 Pole	V = 115VAC ØC I = 5A	IMU PWR Supply (06A2)	100%			CB9 (5A) NAV PWR SUP PH C (35A5)	04Q12	RNL071	IWSFD Fig. 14 Zone 1B, 10B	071
072	AC - 1 Pole	V = 115VAC ØA I = 10A	IMU (06A1)	100%			CB5 (10A) NAV IMU PH A (35A5)	01Q09	RNL072	IWSFD Fig. 14 Zone 1B, 13A	072
073	AC - 1 Pole	V = 115VAC ØB I = 10A	IMU (06A1)	100%			CB3 (10A) NAV IMU PH B (35A5)	01Q10	RNL073	IWSFD Fig. 14 Zone 1B, 13A	073
074	AC - 1 Pole	V = 115VAC ØC I = 10A	IMU (06A1)	100%			CB2 (10A) NAV IMU PH C (35A5)	01Q11	RNL074	IWSFD Fig. 14 Zone 1B, 13A	074
075	DC - 1 Pole	V = 28VDC I = 10A	a) MFO Caution Advisory Indicator (69-A2A1) b) Pilot Caution Advisory Indicator (69A1)	100% 100%			CB30 (10A) ANN PNL PWR (36A2)	07Q15	DUL075	IWSFD Fig. 14 Zone 2A, 17B	075

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 14 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
076	DC - 1 Pole	V = 28VDC I = 3A	CSDC (07A1)	100%			CB27 (3A) CSDC (36A2) (Same as Fig. 13 Item 065)	01Q33	UCL076	1WSFD Fig. 14 Zone 2A, 33A	076

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 14 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
067	RNLO67 = RNS020	020	067	2	Ess. No. 2 Bus	IWSFD Fig. 14 Zone 1C, 3C, 2, 3, 6C 26A	115VAC ϕA, B and C to the AHRS Amplifier and 115VAC ϕA to the CSDC - AHRS SYNC REF = Gyros/WSHLD HT Switch-On
068	RNLO68	N/A	068	2	Ess. No. 2 Bus	IWSFD Fig. 14 Zone 1A, 6C IWSFD Fig. 15 Zone 1A, 9B	115VAC ϕA to AHRS Amplifiers and 115VAC ϕA to the ARN-84 Tacan Receiver - Transmitter mount = 115VAC ϕA Essential #2 Bus energized
069	RNLO69	N/A	069	3	Left Main Bus	IWSFD Fig. 14 Zone 1A, 10B	115VAC ϕA to the IMU PWR Supply = 115VAC ϕA Left Main Bus energized
070	RNLO70	N/A	070	3	Left Main Bus	IWSFD Fig. 14 Zone 1B, 10B	115VAC ϕB to the IMU PWR Supply = 115VAC ϕB Left Main Bus energized
071	RNLO71	N/A	071	3	Left Main Bus	IWSFD Fig. 14 Zone 1B, 10B	115VAC ϕB to the IMU PWR Supply = 115VAC ϕC Left Main Bus energized
072	RNLO72	N/A	072	3	Left Main Bus	IWSFD Fig. 14 Zone 1B, 13A	115VAC ϕA to the IMU = 115VAC Left Main AC Bus energized
073	RNLO73	N/A	073	3	Left Main Bus	IWSFD Fig. 14 Zone 1B, 13A	115VAC ϕA to the IMU = 115VAC Left Main AC Bus energized
074	RNLO74	N/A	074	3	Left Main Bus	IWSFD Fig. 14 Zone 1B, 13A	115VAC ϕA to the IMU = 115VAC ϕA Left Main AC Bus energized
075	DULO75	N/A	075	2	Ess. No. 2 Bus	IWSFD Fig. 14 Zone 2A, 17B	28VDC to the NFO and Pilots Caution Advisory Indicator = 28VDC essential #2 Bus energized
076	UCLO76	N/A	076	2	Ess. No. 2 Bus	IWSFD Fig. 14 Zone 2A, 33A	28VDC to the CSDC = 28VDC Essential #2 Bus energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 15 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
278	Command Speed-Return	FLS278	Data Link Converter (13A1)		Enable Signal	GND/OPEN	Pilot Mach Airspeed Indicator (52M2)	N/A	05D07	IWSFD Fig. 15 Zone 33C	377	External Signal Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 15 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
078	AC - 1 Pole	V = 115VAC ØB I = 5A	Right Pitot Static Probe Heater (81A2)				CB20 (5A) R Pitot/ Static HTR (35A4)	07Q16	HAL078	IWSFD Fig. 15 Zone 2B, 3B, 21B	078
079	AC - 1 Pole	V = 115VAC ØB I = 5A	Left Pitot Static Probe Heater (81A1)				CB21 (5A) L Pitot/ Static HTR (35A4)	03Q10	HAL079	IWSFD Fig. 15 Zone 2B, 3B, 21C	079
080	DC - 1 Pole	V = 28VDC I = 3A	Radar Altimeter (03A2)				CB30 (3A) Alt Low Warn (36A1)	03Q11	SAL080	IWSFD Fig. 15 Zone 3C, 19C	080
081	AC - 1 Pole	V = 115VAC ØB I = 5A	Radar Altimeter (03A2)	100%			CB10 (5A) Radar Altm (35A3)	03Q12	SAL081	IWSFD Fig. 15 Zone 1A, 19B	081
085	AC - 1 Pole	V = 115VAC ØA I = 3A	a) PMS Relay Assembly (27A38)	100%			CB6 (3A) ARC 124 PHA/ ASW 27 (35A5)	03Q13	RNL085	IWSFD Fig. 15 Zone 1B, 33C	085
533	AC - 1 Pole	V = 115VAC ØB	a) Pilot Standby Attitude Indicator (52M1) b) NFO Standby Attitude Indicator (52M1)				CB7 (5A) STBY ATTD IND PH B (35A3) P/O K10-STBY Attitude PWR Relay (Left Glove Relay Box 773A1) CB 6 (7.5A) INST Bus FDR (35A4)	07Q17	FDL533	IWSFD Fig. 15 Zone 4A, 4B, 3A, 1B, 2C	533

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 15 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
534	AC - 1 Pole	V = 115VAC ØA	a) Pilot Standby Attitude Indicator (52M5) b) NFO Standby Attitude Indicator (52M5)				CB11 (5A) STBY ATTD IND PH A (35A3) CB26 (7.5A) INST Bus FDR (35A4) P/O K10-STBY Attitude PWR Relay (Left Glove Relay Box 773A1)	07Q18	FDL534	IWSFD Fig. 15 Zone 4A, 4B, 3A, 2C, 1B	534
377	Relay Driver	GND/Open	Pilot Mach Airspeed Indicator (52M2)				P/O K42-ALT Reliable Relay (Left Glove Relay Box 773A1)	02D26	FLL377	IWSFD Fig. 15 Zone 34B, 3A	377
378	AC - 1 Pole	V = 26VAC ØA	a) Pilot BDHI (01A5) b) NFO BDHI (732A1M2)	100% 100%			CB1 (5A) - Tacan/BDHI INST PWR	03Q34	FFL378	IWSFD Fig. 15 Zone 16, 1C	378
402	DC - 1 Pole	V = 28VDC	Rate Gyro Transmitter (52A1) 28VDC	100%			CB35 (5A) A/S IND/ BAROALTM DC (36A2)	01Q57	FAL402	IWSFD Fig. 15 Zone 2A, 3C	402
403	DC - 1 Pole	V = 28VDC	a) Pilot Comm/NAV CMD Panel (721A1) b) ARN-84 Tacan Receiver - Transmitter Mount (01A1) c) Pilot BDHI (01A5) d) NFO BDHI (732A1M2)	100%			CB22 (3A) Tacan, BDHI (36A2)	07Q19 03Q14	RUL403	IWSFD Fig. 15 Zone 2A 8A 9B, 15A, 15C	403

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 15 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
078	HAL078 = HAS006 + [HAS007 • (GDS002 + GDS102)]	002 102 006 007	078	2	Ess. No. 2 Bus	IWSFD Fig. 15 Zone 2B, 3B, 21B	Right Pitot Static Probe Heater is Energized if the ENG/Probe Anti-ice Switch is in ORIDE Position or (if in the Auto Position and Left or Right MLG Weight is not on Wheels)
079	HAL079 = HAS006 + [HAS007 • (GDS002 + GDS102)]	002 102 006 007	079	2	Ess. No. 2 Bus	IWSFD Fig. 15 Zone 2B, 3B, 21C	Left Pitot Static Probe Heater is Energized if the ENG/Probe Anti-ice Switch is in ORIDE Position or if in the Auto Position and Left or Right MLG Weight is not on Wheels
080	SAL080	N/A	080	1	Ess. No. 1 Bus	IWSFD Fig. 15 Zone 3C, 19C	Radar Altimeter +28VDC = 28VDC Ess. #1 Bus energized
081	SAL081	N/A	081	1	Ess. No. 1 Bus	IWSFD Fig. 15 Zone 1A, 19B	Radar Altimeter 115VAC ØB = 115VAC ØB Ess. #1 Bus energized
085	RNL085	N/A	085	3	Left Main Bus	IWSFD Fig. 15 Zone 1B, 3C IWSFD Fig. 3A Zone 1A, 10A	PMS Relay Assembly - (115VAC ØA) = 115VAC ØA Left Main Bus-Energized
533	FDL533 = ZAS277	277	533	1	Ess. No. 1 Bus	IWSFD Fig. 15 Zone 4A, 4B 3A, 2C, 1B	Pilot and NFO Standby Attitude Indicator 115VAC ØB = Inst-On
534	FDL534 = XAS277	277	534	1	a) Ess. No. 1 Bus b) Require 115VAC ØA out of Transformer (for Phase Reversal) to achieve 115V Line to Line	IWSFD Fig. 15 Zone 4A, 4B, 3A 2C, 1B	Pilot and NFO Standby Attitude Indicator 115VAC (180° Shifted ØA) = Inst-On
377	FLL377 = FLS278 • FKS517	278 517	377	2	Ess. No. 2 Bus	IWSFD Fig. 15 Zone 3AB, C 3B, 28B	Pilot Mach Airspeed Indicator - ADC Reliable = Command Speed - Return and ADC Altitude - Reliable

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 15 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
378	FFL378	N/A	378	2	NAV. Bus	IWSFD Fig. 15 Zone 16, 1C	Pilot and NFO BDHI - 26VAC ϕA - 26VAC NAV Bus PH A - energized
402	FAL402	N/A	402	2	Ess. No. 2 Bus	IWSFD Fig. 15 Zone 2A, 3C	Rate Gyro Transmitter - 28VDC Essential No. 2 Bus - energized
403	RUL403	N/A	403	2	NAV. Bus	IWSFD Fig. 15 Zone 2A, 8A 9B, 15A, 15C	Pilot Comm/NAV CMD Panel, ARN-84 TACAN RCV-XMTR Mount, Pilot and NFO BDHI - 28VDC - 28VDC Essential Bus No. 2 energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 16 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
076	MCB Enable	KCS076	Armament Panel (85A1)	NFO Left Vertical Console STA300	N/A	Enable = 28VDC Enable =	Power Switching Unit (85A2)	And Logic Gate in Power Switching Unit (85A2)	05D08	IWSFD Fig. 16 Zone 12C 5B	140 141 193 194	External Signal Adapter
077	Emergency Stores Jettison	AMS077	Emerg Stores Jett Push Button Switch (85S2)	Pilots Left Vertical Console STA225	Four Pole Push Button Switch (Momentary Must Contain Logic Lock Up)	Jett = 28VDC Jett = Open	Armament Panel (85A1)	Emerg Stores Jet Push Button Switch (85S2)	01P23	IWSFD Fig. 16 Zone 4B	148 149 150 151 153	Solid State
078	ACM (Air Combat Maneuver) On	AMS078	ACM Panel (702A1)	Pilots Center Panel STA225	Toggle Switch	ACM - On = 28VDC ACM - Off - Open	Armament Panel (85A1)	ACM Switch (ACM Panel (702A1)	02P17	IWSFD Fig. 16 Zone 2A	149 150	Solid State
079	Fuse Enable INTLK (28VDC)	AMS079	Armament Panel (85A1)	NFO Left Vertical Console STA300	N/A	Switched 28VDC	a) ARMT Safety Oride Switch (85S3) b) Safety Override Signal (28VDC) to Armament Panel (85A1)		05D09	IWSFD Fig. 16 Zone 5B, 4B	157	External Signal Adapter
080	Armament Safety Oride Switch - Enabled	AMS080	Armament Safety Override Switch (85S3)		Toggle Switch (Mechanical Toggle with Electrical Lockup)	Switch 28VDC with Relay Lock Up	Safety Override Signal (28VDC) to Armament Panel (85A1)	Armament Safety Override Switch (85S3)	04P06	IWSFD Fig. 16 Zone 4A	153 154 155 156	Solid State
081	ACM JETT	AMS081	ACM JETT. Push Button Switch (ACM Panel 702A1)	Pilots Center Panel STA225	Push Button	Switched 28VDC	Armament Panel (85A1)		02P18	IWSFD Fig. 16 Zone 2A	153 154 155 156 157	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 16 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
082	Master Arm - On	AMS082	ACM Panel (702A1)	Pilots Center Panel STA225	Toggle Switch	Switched 28VDC	Armament Panel(85A1)		02P19	IWSFD Fig. 16 Zone 2A	156 157	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 16 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
126	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB33 (7.5A) STA5, 6 and 7 REL PWR A (36A1)	05Q51	AGL126	IWSFD Fig. 16 Zone 1A, B, C	126
127	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB32 (7.5A) STA5, 6 and 7 REL PWR B (36A1)	05Q52	AGL127	IWSFD Fig. 16 Zone 1A, 13C	127
128	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB10 (7.5A) STA8 REL PWR A (36A1)	05Q53	AGL128	IWSFD Fig. 16 Zone 1A, 13C	128
129	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB9 (7.5A) STA8 REL PWR B (36A1)	05Q54	AGL129	IWSFD Fig. 16 Zone 1A, 13C	129
130	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB35 (7.5A) STA2, 3 and 4 REL PWR A (36A1)	05Q55	AGL130	IWSFD Fig. 16 Zone 1A, 13C	130
131	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB34 (7.5A) STA2, 3 and 4 REL PWR B (36A1)	05Q56	AGL131	IWSFD Fig. 16 Zone 1A, 13C	131
132	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB26 (7.5A STA1 REL PWR A (36A1)	05Q57	AGL132	IWSFD Fig. 16 Zone 1A, 13C	132
133	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB25 (7.5A) STA1 REL PWR B (36A1)	05Q58	AGL133	IWSFD Fig. 16 Zone 1B, 8C	133
134	DC - 1 Pole	V = 28VDC I = 7.5A	Power Roll Comp DC Switching Unit (85A2)	100%			CB37 (7.5A) STA1 AIM9 REL PWR (36A1)	05Q59	AGL134	IWSFD Fig. 16 Zone 1B, 13C	134
135	DC - 1 Pole	V = 28VDC I = 7.5A	Power Pitch Comp DC Switching Unit (85A2)	100%			CB38 (7.5A) STA8 AIM9 REL PWR (36A1)	05Q60	AGL135	IWSFD Fig. 16 Zone 1B, 13C	135
136	DC - 1 Pole	V = 28VDC I = 3A	ACM Panel (702A1)	100%			CB56 (3A) ACM PNL PWR (36A1)	03Q15	AGL136	IWSFD Fig. 16 Zone 1B, 2A	136
137	DC - 1 Pole	V = 28VDC I = 3A	Power Switching Unit (85A2)	100%			CB53 (3A) Mid CPRSN Bypass PWR (36A4)	05Q61	KCL137	IWSFD Fig. 16 Zone 3A, 5C	137
138	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB8 (7.5A) Mech Fusing 3/4 (36A4)	05Q62	AGL138	IWSFD Fig. 16 Zone 3A, 15C	138

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 16 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
139	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2)	100%			CB7 (7.5A) Mech Fusing 5/6 (36A4)	05Q63	AGL139	IWSFD Fig. 16 Zone 3A, 15C	139
140	DC - 1 Pole	V = 28VDC I = 5A	Right Engine Mid CPRSN Bypass Bleed Control				CB58 (5A) R Mid CPRSN Bypass (36A2) K57 Gun Missle Firing Interlock Relay (Left Glove Relay Box 773A1)	10Q05	KCL140	IWSFD Fig. 16 Zone 1C, 5B 17A, 18A	140
141	DC - 1 Pole	V = 28VDC I = 5A	Left Engine Mid CPRSN Bypass Bleed Control				CB57 (5A) L Mid CPRSN Bypass (36A2)	09Q06	KCL141	IWSFD Fig. 16 Zone 1C, 5B 17A, 18A	141
142	AC - 1 Pole	V = 115VAC ØA I = 3A	a) Power Switching Unit (85A2) b) Armament Panel (85A1)	100% 100%			CB9 (3A) AWG-15 PH A No. 2 (35A3)	02Q05 03Q17	AGL142	IWSFD Fig. 16 Zone 4C, 5C	142
143	AC - 1 Pole	V = 115VAC ØA I = 3A	Power Switching Unit (85A2)	100%			CB13 (3A) AWG 15 ØA No 1 (35A3)	02Q06	AGL143	IWSFD Fig. 16 Zone 4C, 5C	143
144	AC - 1 Pole	V = 115VAC ØB I = 3A	Power Switching Unit (85A2)	100%			CB14 (3A) AWG 15 ØB No 1 (35A3)	02Q07	AGL144	IWSFD Fig. 16 Zone 4C, 5C	144
145	AC - 1 Pole	V = 115VAC ØB I = 3A	Power Switching Unit (85A2)	100%			CB6 (3A) AWG 15 ØB No. 2 (35A3)	02Q08	AGL145	IWSFD Fig. 16 Zone 4C, 5C	145
146	AC - 1 Pole	V = 115VAC ØC I = 3A	Power Switching Unit (85A2)	100%			CB15 (3A) AWG 15 ØB No. 1 (35A3)	02Q09	AGL146	IWSFD Fig. 16 Zone 4C, 5C	146
147	AC - 1 Pole	V = 115VAC ØC I = 3A	Power Switching Unit (85A2)	100%			CB2 (3A) AWG 15 ØC No. 2 (35A3)	02Q10	AGL147	IWSFD Fig. 16 Zone 4C, 5C	147
148	DC - 1 Pole	V = 28VDC I = 7.5A	Armament Panel (85A1)				CB7 (7.5A) Jett No. 2 (36A1) K22 MLG Safety B (Right Glove Relay Box 772A1)	02D27	AML148	IWSFD Fig. 16 Zone 1B, 3B, 4B, 5B	148

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 16 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
149	Enable Driver	V = 28VDC I = 7.5A	Armament Panel (85A1)				CB8 (7.5A) Jett No. 1 (36A1) CB3 (5A) MLG Safety RLY No. 2 (36A1) K22 MLG Safety B (Right Glove Relay Box 772A1)	02D28	AML149	IWSFD Fig. 16 Zone 1B	149
150	DC - 1 Pole	V = 28VDC	Armament Panel (85A1)				CB4 (5A) MLG Safety No. 1 (36A1) K31 MLG Safety D (Right Glove Relay Box 772A1)	02D29	AML150	IWSFD Fig. 16 Zone 1B, 3B, 4B, 5B	150
151	Lamp Driver	V = 28VDC	EMERG Jett Push Button (85S2)					02D30	AML151	IWSFD Fig. 16 Zone 1B, 4B	151
152	DC - 1 Pole	V = 28VDC I = 5 Amp	a) AWG-15 (28VDC) (85A1) b) Power Switching Unit (85A2)	100%			CB31 (5A) AWG-15 DC (36A1)	03Q16	AGL152	IWSFD Fig. 16 Zone 2B IWSFD Fig. 18 Zone 1B, 1C	152
153	Enable Driver	V = 28VDC	Safety Override (28VDC) Armament Panel (85A1)					02D31	AGL153	IWSFD Fig. 16 Zone 5B, 4B, 4A	153
154	Enable Driver	V = 28VDC	MLG HDL DN (28VDC) Master Arm Select (Armament Panel 85A1)				See Fig IX CB5 (5A) MLG Handle RLY No. 1 (36A2) K1 MLG Handle (Right Glove Relay Box 772A1) CB28 (5A) Master Arm (36A1)	02D32	AGL154	IWSFD Fig. 16 Zone 5B, 3C 2A	154
155	Enable Driver	V = 28VDC	MLG HDL Up (28VDC) Master Arm Select (Armament Panel 85A1)					02D33	AGL155	IWSFD Fig. 16 Zone 5B, 3C, 2A	155
156	Enable Driver	V = 28VDC	ACM Jettison Select (28VDC) (Armament Panel 85A1)					02D34	AML156	IWSFD Fig. 16 Zone 5B, 3A, 2A	156

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 16 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
157	Enable Driver	V - 28VDC	Fuse Enable (28VDC) (Armament Panel 85A1)				CB4 (3A) MLG Handle RLY No. 2 (36A2) K6 MLG Handle (Right Glove Relay Box 772A1)	02D35	AGL157	1WSFD Fig. 16 Zone 5B, 2A, 4A	157

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 16 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
126	AGL126	N/A	126	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13C	Station 5, 6 and 7 Release Power A (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
127	AGL127	N/A	127	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13A	Station 5, 6 and 7 Release Power B (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
128	AGL128	N/A	128	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13C	Station 8 Release Power A (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
129	AGL129	N/A	129	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13C	Station 8 Release Power B (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
130	AGL130	N/A	130	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13C	Station 2, 3 and 4 Release Power A (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
131	AGL131	N/A	131	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A , 13C	Station 2, 3 and 4 Release Power B (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
132	AGL132	N/A	132	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1A, 13C	Station 1 Release Power A (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
133	AGL133	N/A	133	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1B, 13C	Station 1 Release Power B (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
134	AGL134	N/A	134	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1B, 13C	Station 1 Aim 9 Release Power (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
135	AGL135	N/A	135	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1B, 13C	Station 8 Aim 9 Release Power (28VDC) to the Power Switching Unit = 28VDC Ess. No. 1 Bus energized
136	AGL136	N/A	136	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1B, 2A	Air Combat Maneuver Panel (28VDC) = 28VDC Ess. No. 1 Bus energized
137	KCL137	N/A	137	3	Left Main Bus	IWSFD Fig. 16 Zone 3A, 5A	Mid Compression Bypass Power (28VDC) to the Power Switching Unit = 28VDC Left Main Bus energized
138	AGL138	N/A	138	3	Left Main Bus	IWSFD Fig. 16 Zone 3A, 15C	Mech Fusing STA3 and 4 to the Power Switching Unit = 28VDC Left Main Bus energized

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 16 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
139	AGL139	N/A	139	3	Left Main Bus	IWSFD Fig. 16 Zone 3A, 15C	Mech Fusing 8TA5 and 6 to the Power Switching Unit = 28VDC Left Main Bus energized
140	KCL140 = KCS076	076	140	2	a) Ess. No. 2 Bus b) Requires 5 Sec Holding after Enable Term Goes False	IWSFD Fig. 16 Zone 1C, 5B, 17A, 18A	Right Engine Mid Compression Bypass Bleed Solinoid is energized = MCB Enable
141	KCL141 = KCS076	076	140	2	a) Ess. No. 2 Bus c) Requires 5 Sec Holding After Enable Term Goes False	IWSFD Fig. 16 Zone 1C, 5B, 17A, 18A	Left Engine Mid Compression Bypass Bleed Solinoid is energized = MCB Enable
142	ALG142	N/A	142	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 4C, 5C	AWG-15 115VAC ØA No. 2 to the Power Switching Unit and Armament Panel = 115VAC ØA Ess. No. 1 Bus energized
143	AGL143	N/A	143	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 4C, 5C	AWG-15 115VAC ØA No. 1 to the Power Switching Unit = 115VAC ØA Ess. No. 1 Bus energized
144	AGL144	N/A	144	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 4C, 5C	AWG-15 115VAC ØB No. 1 to the Power Switching Unit = 115VAC ØB Ess. No. 1 Bus energized
145	AGL145	N/A	145	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 4C, 5C	AWG-15 115VAC ØB No. 2 to the Power Switching Unit = 115VAC ØB Ess. No. 1 Bus energized
146	AGL146	N/A	146	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 4C, 5C	AWG-15 115VAC ØC No. 1 to the Power Switching Unit = 115VAC ØC Ess. No. 1 Bus energized
147	AGL147	N/A	147	1	Ess. No. 1 Bus	IWSFD Fig. 16	AWG-15 115VAC ØC No. 2 to the Power Switching Unit = 115VAC ØC Ess. No. 1 Bus energized
148	$\frac{AML148}{GDS002 + GDS102} = \frac{AMS077}{}$ •	002 102 007	148	1	a) Ess. No. 1 Bus b) Momentary Switch must Contain Logic Lockup for > 10M Sec	IWSFD Fig. 16 Zone 1B, 2C, 3B, 4B, 5B	Emerg Jett CMD No. 2 (28VDC) = Emerg Jett Stores Push Button Switch Depressed and Left or Right MLG Weight is not on Wheels

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 16 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
149	AML149 = AMS078	078	149	1	a) Ess. No. 1 Bus b) Momentary With > 10MS Lockup	IWSFD Fig. 16 Zone 1B, 2A, 5B	ACM Encounter Mode Select (28VDC) = ACM Switch On
150	AML150 = $\overline{GDS002}$ + $\overline{GDS102}$ • AMS078	002 102 078	150	1	a) Ess. No. 1 Bus b) Momentary With > 10MS Lockup	IWSFD Fig. 16 Zone 1B, 3B, 4B, 5B	Emerg Jett CMD No. 1 (28VDC) = Left or Right MLG Weight is not on wheels and Emerg Jett Stores Push Button Switch Depressed
151	AML151 = AMS077	077	151	1	a) Ess. No. 1 Bus b) Momentary With > 10M Sec Lockup	IWSFD Fig. 16 Zone 4B	Emerg Stores Jett Push Button Switch Lamp On (28VDC) = Emerg Stores Jett Push Button Depressed
152	AGL152	N/A	152	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 1B, 5B IWSFD Fig. 18 Zone 1B, 1C	AWG-15 (28VDC) and Power Switching Unit (85A2) 28VDC = 28VDC Ess. No. 1 Bus energized
153	AGL153 = AMS080 • GDS052 • AMS082	052 080 082	153	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 2A, 3A, 4B, 5B	Safety Override (28VDC) to Armament Panel = Armament Safety Override Switch Enabled and MLG Handle-Down and ACM Panel Master Arm-On
154	AGL154 = GDS052 • AMS082	052 080	154	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 2A, 3C, 5B	MLG HDL DN (28VDC)/Master Arm Select to Armament Panel = MLG Handle-Down and ACM Panel Master Arm-On
155	AGL155 = $\overline{GDS052}$ • AMS082	052 080	155	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 2A, 3C, 5B	MLG HDL UP (28VDC)/Master Arm Select to the Armament Panel = ML Handle-Up AND ACM Panel master Arm-On
156	AML156 = AMS081 • ($\overline{GDS052}$ • AMS078) + (AMS080•GDS052 • AMS082)	052 078 080 081 082	156	1	Ess. No. 1 Bus	IWSFD Fig. 16 Zone 2A, 3C 4B, 5B	ACM Jettison Select (28VDC) to the Armaments Panel = ACM Jett Push Button Depressed and (MLG Handle-Up) or (ARMT Safety Oride Switch-Enabled and MLG Handle-Down and Master Arm Switch-On)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 16 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
157	$\overline{AGL157} \cdot \overline{AMS081} \cdot \overline{AMS077} \cdot AMS079$	077 079 081	157	1	Ess. No. 1 Bus	IMSFD Fig. 16 Zone 5B, 2A, 4B	Fuse Enable (28VDC) to the Armament Panel = ACM Jett Push Button Not Depressed and Emeg. Stores Jett Push Button Not Depressed and Fuse Enable INTLK

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 17 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
251	Target Designate-Up	AAS251	Target Designate Switch (85S1)	Pilots Left Side Console FS225	3 Position Slide Switch	Up = Switched 28VDC $\overline{Up}$ = Open	Armament Panel (85A1)	Target Designate Switch	01P24	1WSFD Fig. 17 Zone 2A	328	Solid State
252	Target Designate - DES	AAS252	Target Designate Switch (85S1)	Pilots Left Side Console FS225	3 Position Slide Switch	DES - Switched 28VDC $\overline{DES}$ = Open	Armament Panel (85A1)	Target Designate Switch	01P25	1WSFD Fig. 17 Zone 2A	329	Solid State
253	Target Designate - DN	AAS253	Target Designate Switch (85S1)	Pilots Left Side Console FS225	3 Position Slide Switch	DN = Switched 28VDC $\overline{DN}$ = Open	Armament Panel (85A1)	Target Designate Switch	01P26	1WSFD Fig. 17 Zone 2A	330	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 17 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
322	AC - 1 Pole	V = 115VAC ØA I = 5A	Power Supply (30A1)	100%			CB53 (5A) AN/AWW-4 115 VAC ØA (35A5)	01Q42	AAL322	IWSFD Fig. 17 Zone 3A, 4A	322
323	AC - 1 Pole	V = 115VAC ØB I = 5A	Power Supply (30A1)	100%			CB44 (5A) An/AWW-4 115VAC ØB (35A5)	01Q43	AAL323	IWSFD Fig. 17 Zone 3A, 4A	323
324	AC - 1 Pole	V = 115VAC ØC I = 5A	Power Supply (30A1)	100%			CB50 (5A) AN/AWW-4 115VAC ØC (35A5)	01Q44	AAL324	IWSFD Fig. 17 Zone 3A, 4A	324
325	Enable Signal	V = 28VDC	Armament Panel (85A1) (NLG Door-Up and Locked Signal)				CB28 (5A) Master Arm (36A1)	02D36	AAL325	IWSFD Fig. 17 Zone 6C, 3B, 1B	325
326	Enable Signal	V = 28VDC	Armament Panel (85A1) (MLG HDL DN Signal)				CB28 (5A) Master Arm (36A1) P/O K1 MLG Handle "E" (Right Glove Relay Box 772A1)	02D37	AAL326	IWSFD Fig. 17 Zone 5C, 3C, 1B	326
327	Relay Driver	GND/Open	Power Supply (30A1) (INTLK RTN - Signal				CB4 (5A) MLG Safety RLY No. 1 (36A1) P/O K31 MLG SAF D (Right Glove Relay Box 772A1)		AAL327	IWSFD Fig. 17 Zone 4C, 3C, 2B, 1B	327
328	Enable Signal	V = 28VDC	Armament Panel (85A1) (Target Designator Up-Signal)				CB36 (3A) ACM Panel PWR (36A1)	02D38	AAL328	IWSFD Fig. 17 Zone 6B, 1A	328
329	Enable Signal	V = 28VDC	Armament Panel (85A1) (Target Designator DES Signal)				CB36 (3A) ACM Panel PWR (36A1)	02D39	AAL329	IWSFD Fig. 17 Zone 6B, 1A	329
330	Enable Signal	V = 28VDC	Armament Panel (85A1) (Target Designator DN-Signal)				CB36 (3A) ACM Panel PWR (36A1)	02D40	AAL330	IWSFD Fig. 17 Zone 6B, 1A	330

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 17 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
331	DC - 1 Pole	V = 28VDC	Armament Panel (85A1) (Target Designator DN-Signal)	100%			CB12 (5A) AN/AWW 4 (36A4)	02D41	AAL331	ISWFD Fig. 17 Zone 6A, 1C	331
397	DC - 1 Pole	V = 28 VDC I = 7.5A	Power Switching Unit (85A2) Mech Fusing STA1 and 8	100%			CB9 (7.5A) Mech Fusing STA1 and 8 (36A4)	06Q01	AGL397	1WSFD Fig. 17 Zone 1C, 17A	397

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 17 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
322	AAL322	N/A	322	3	Left Main Bus	IWSFD Fig. 17 Zone 3A, 4A	Power Supply (30A1) - 115VAC ØA = 115VAC ØA Left Main Bus-energized
323	AAL323	N/A	323	3	Left Main Bus	IWSFD Fig. 17 Zone 3A, 4A	Power Supply (30A1) - 115VAC ØB = 115VAC ØB Left Main Bus-energized
324	AAL324	N/A	324	3	Left Main Bus	IWSFD Fig. 17 Zone 3A, 4A	Power Supply (30A1) - 115VAC ØC = 115VAC ØC Left Main Bus-energized
325	AAL325 = GJS202	202	325	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 6C, 3B, 1B	Armament Panel - NLG Door Up and Locked Signal = NLG Door-Up and Locked
326	AAL326 = GDS052	052	326	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 5C, 3C, 2B	Armament Panel - MLG HDL Down Signal = MLG Handle - Down
327	AAL327 = $\overline{\text{GDS002}}$	002	327	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 4C, 3C, 2B, 5B	Power Supply (30A1) - INTLK RTN (GND) = Left MLG Weight on Wheels - Not
328	AAL328 = AAS251	251	328	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 6B, 1A	Armament Panel - Target Designate Up Signal = Target Designate-Up
329	AAL329 = AAS252	252	329	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 6B, 1A	Armament Panel - Target Designate DES Signal = Target Designate-DES
330	AAL330 = AAS253	253	330	1	Ess. No. 1 Bus	IWSFD Fig. 17 Zone 6B, 1A	Armament Panel - Target Designate DN Signal = Target Designate-DN
331	AAL331	N/A	331	3	Left Main Bus	IWSFD Fig. 17 Zone 6A, 1C	Armament Panel - (AWW-4-28VDC) = 28VDC Left Main Bus energized
397	AGL397	N/A	397	3	Left Main Bus	IWSFD Fig. 17 Zone 1C, 17A	Power Switching Unit - (Mech Fusing STA1 and 8) = 28VDC Left Main Bus energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 18 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
254	Cage-Seam	AIS254	Throttle Quadrant (711A1) - Cage-Seam Switch	Pilots Left Side Console FS225	Push Button Switch	Cage-Seam = Switched 28VDC Cage-Seam not = Open	Armament Panel (85A1) (Gun Cage Command 28V)	Cage-Seam Switch	01P27	IWSFD Fig. 18 Zone 2C	333	Solid State
255	Weapon Selector-Gun	AIS255	Control Stick (20A4) Hand Grip (20A4A2)	Pilots Cockpit FS225	4 Position Switch	Gun = Switched 28VDC Off = Open	Armament Panel (85A1) (Gun Select 28VDC)	N/A	02P20	IWSFD Fig. 18 Zone 8C	336 337	Resistor Divider Adapter
256	Weapon Trigger-Depressed	AIS256	Control Stick (20A4) Hand Grip (20A4A2)	Pilots Cockpit FS225	Double Ganged Push Button	Depressed = Switched 28VDC Depressed Not = Open	Armament Panel (85A1)	N/A	02P21	IWSFD Fig. 18 Zone 8C	337	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 18 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
332	AC - 1 Pole	V = 115VAC ØB I = 3A	Gun Controller (31A1) (115VAC ØB Power)	100%			CB16 (3A) Gun Contr PWR AC (35A1)	01Q16	ADL332	IWSFD Fig. 18 Zone 33C, 2A	332
333	Enable Driver	V = 28VDC	Armament Panel (85A1) (Gun Cage CMD 28VDC)				CB36 (3A) ACM PNL PWR (36A1)	02D42	ADL333	IWSFD Fig. 18 Zone 9C, 2C, 1C	333
334	DC - 1 Pole	V = 28VDC I = 7.5A	Power Switching Unit (85A2) (Gun Arm 28VDC)	100%			CB35 (7.5A) Gun Armed PWR (36A4)	06Q02	ADL334	IWSFD Fig. 18 Zone 38C, 1B	334
335	DC - 1 Pole	V = 28VDC I = 15A	a) Gun Controller (31A1) (Gun Clear/Gun Control 28VDC)	100%			CB41 (15A) Gun CLR/Gun Contr PWR DC (36A4)	01Q17	ADL335	IWSFD Fig. 18 Zone 1C, 38B 40C, 41C	335
			b) Purging Switching Assembly (31A8) (Gun Control 28VDC)	100%							
336	Enable Driver	V = 28VDC	Armament Panel (85A1) (Gun Select 28VDC)				CB31 (5A) AWG-15 DC (36A1)	02D43	ADL336	IWSFD Fig. 18 Zone 1C, 8C, 9B	336
337	Enable Driver	V = 28VDC	Purging Switching Assembly (31A8) (Trigger Interrupt Enable 28VDC)				CB31 (5A) AWG-15 DC (36A1)	01Q18	ADL337	IWSFD Fig. 18 Zone 1C, 8C, 40C, 42B	337

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 18 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
332	ADL332	N/A	332	3	R. Main Bus	IWSFD Fig. 18 Zone 33C, 2A	Gun Controller (31A1) 115VAC ØB PWR = 115VAC ØB Bus energized
333	ADL333 = ADS254	254	333	1	Ess. No. 1 Bus	IWSFD Fig. 18 Zone 9C, 2C, 1C	Armament Panel - Gun Cage CMD 28VDC = Cage-Seam
334	ADL334	N/A	334	3	R. Main Bus	IWSFD Fig. 18 Zone 39C, 1B	Power Switching Unit (85A2) - Gun Arm 28VDC = 28VDC Right Main Bus energized
335	ADL335	N/A	335	3	R. Main Bus	IWSFD Fig. 18 Zone 1C, 38B, 40C, 41C	Gun Controller (31A1) and Purging Switching Assembly (31A8) - Gun Clear/Gun Control 28VDC = 28VDC Right Main Bus energized
336	ADL336 = ADS225	255	336	1	Ess. No. 1 Bus	IWSFD Fig. 18 Zone 1C, 8C, 9B	Armament Panel (85A1) - Gun Select 28VDC = Weapon Selector - Gun
337	ADL337 = ADS255 • ADS256	255 256	337	1	Ess. No. 1 Bus	IWSFD Fig. 18 Zone 1C, 8C, 40C, 42B	Purgine Switching Assembly (31A8) - Trigger Interrupt 28VDC = Weapon Selector - Gun and Weapon Trigger - Depressed

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 19 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
257	STATION 1A SIDEWINDER -PWR INTLK (28 VDC RTN)	AGS 257	STATION 1A OUTBOARD SIDEWINDER	LEFT WING FS 560 BL 120	SIDEWINDER 1A GND	GND = SIDEWINDER 1A ONBOARD OPEN = NOT ON BOARD	K40 - STA 1A PWR GND INTERLOCK (LEFT GLOVE RELAY BOX 773A1)	N/A	04P07	IWSFD FIG 19 ZONE 19A, 57A	340 341	RESISTOR DIVIDER ADAPTER
258	STATION 1B SIDEWINDER -PWR INTLK (28 VDC RTN)	AGS 258	STATION 1B INBOARD SIDEWINDER	LEFT WING FS 560 BL 120	SIDEWINDER 1B GND	GND = SIDEWINDER 1B ON BOARD OPEN = NOT ON BOARD	K41 - STA 1B PWR GND INTERLOCK (LEFT GLOVE RELAY BOX 773A1)	N/A	04P08	IWSFD FIG. 19 ZONE 19A, 57A	342 343	RESISTOR DIVIDER ADAPTER
259	STATION 8A SIDEWINDER - PWR INTLK (28 VDC RTN)	AGS 259	STATION 8A OUTBOARD SIDEWINDER	RIGHT WING FS 560 BL 120	SIDEWINDER 8A GND	GND = SIDEWINDER 8A ON BOARD OPEN = NOT ON BOARD	K40 - STA 8A PWR GND INTERLOCK (RIGHT GLOVE RELAY BOX 772A1)	N/A	07P21	IWSFD FIG. 19 ZONE 20A, 57A	344 345	RESISTOR DIVIDER ADAPTER
260	STATION 8B SIDEWINDER - PWR INTLK (28 VDC RTN)	AGS 260	STATION 8B INBOARD SIDEWINDER	RIGHT WING FS 560 BL 120	SIDEWINDER 8B GND	GND = SIDEWINDER 8B ON BOARD OPEN = NOT ON BOARD	K41 - STA 8B PWR GND INTERLOCK (RIGHT GLOVE RELAY BOX 772A1)	N/A	07P22	IWSFD FIG. 19 ZONE 20A, 57A	346 347	RESISTOR DIVIDER ADAPTER
279	WEAPON SELECTOR SW	YAS 279	CONTROL STICK (20A4) HAND GRIP (20A-YAS)	PILOTS CENTER CONSOLE FS 225	1P 4 POSITION SWITCH	SW = 28 VDC OFF = OPEN	ARMAMENT PANEL (85A1)	N/A	02P22	IWSFD FIG. 19 ZONE 8B	379	RESISTOR DIVIDER ADAPTER
280	MSL STEPPING SW-DEPRESSED	YAS 280	CONTROL STICK (20A4) HAND GRIP (20A4A2)	PILOT'S CENTER CONSOLE FS 225	PUSHBUTTON	DEPRESSED = SWITCHED 28 VDC DEPRESSED = OPEN	ARMAMENT PANEL (85A1) (AIM-9 STATION SELECT 28 VDC)	N/A	02P23	IWSFD FIG. 19 ZONE 8A	380	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 19 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
338	DC-1 POLE	V= 28 VDC I= 5A	POWER SWITCHING UNIT (85A2)	100%			CB24 (5A) STA 1 AIM-9 COOL PWR (36A4)	06Q03	AGL 338	IWSFD FIG.19 ZONE 3C, 19C	338
339	DC-1 POLE	V= 28 VDC I= 5A	POWER SWITCHING UNIT (85A2)	100%			CB21 (5A) STA 8 AIM-9 COOL PWR (36A4)	06Q04	AGL 339	IWSFD FIG.19 ZONE 3C, 19C	339
340	DC-1 POLE	V= 28 VDC I= 10A	SIDEWINDER LAUNCHER (STATION 1A OUTBOARD)				CB26 (10A) STA 1A AIM-9 PWR (36A4) P/O K40 - STA 1A (LEFT GLOVE RELAY BOX 773A1)	08Q01	AGL 340	IWSFD FIG. 19 ZONE 3C, 19A 38B, 57A	340
341	AC-1 POLE	V= 115 VAC øB I= 3A	SIDEWINDER LAUNCHER (STATION 1A OUTBOARD)				CB14 (3A) STA 1A AIM-9 PWR PH B (35A1) P/O K40 - STA 1A (LEFT GLOVE RELAY BOX 773A1)	08Q02	AGL 341	IWSFD FIG. 19 ZONE 4A, 19A 38A, 57A	341
342	DC-1 POLE	V= 28 VDC I= 10A	SIDEWINDER LAUNCHER (STATION 1B INBOARD)				CB25 (10A) STA 1B AIM-9 PWR (36A4) P/O K41 - STA 1B (LEFT GLOVE RELAY BOX 773A1)	08Q03	AGL 342	IWSFD FIG. 19 ZONE 3C, 19A 43B, 57A	342
343	AC-1 POLE	V= 115 VAC øC I= 3A	SIDEWINDER LAUNCHER (STATION 1B INBOARD)				CB12 (3A) STA 1B AIM-9 PWR PH B (35A1) P/O K41 - STA 1B (LEFT GLOVE RELAY BOX 773A1)	08Q04	AGL 343	IWSFD FIG. 19 ZONE 3C, 20A 50B, 57A	343
344	DC-1 POLE	V= 28 VDC I= 10A	SIDEWINDER LAUNCHER (STATION 8A OUTBOARD)				CB23 (10A) STA 8A AIM-9 PWR (36A4) P/O K40 - STA 8A (RIGHT GLOVE RELAY BOX 772A1)	08Q05	AGL 344	IWSFD FIG. 19 ZONE 3C, 20A 50B, 57A	344
345	AC-1 POLE	V= 115 VAC øB I= 3A	SIDEWINDER LAUNCHER (STATION 8A OUTBOARD)				CB4 (3A) STA 8A AIM-9 PWR øB (35A1) P/O K40 - STA 8A (RIGHT GLOVE RELAY BOX 772A1)	08Q06	AGL 345	IWSFD FIG. 19 ZONE 4B, 20A 50A, 57A	345

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 19 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
346	DC-1 POLE	V= 28 VDC I= 10A	SIDEWINDER LAUNCHER (STATION 8B INBOARD)				CB22 (10A) STA 8B AIM-9 PWR (36A4) P/O K41 - STA 8B (RIGHT GLOVE RELAY BOX 772A-1)	08Q07	AGL 346	IWSFD FIG. 19 ZONE 3C, 20A 55B, 52A	346
347	AC-1 POLE	V= 115 VAC ϕ C I= 3A	SIDEWINDER LAUNCHER (STATION 8B INBOARD)				CB2 (3A) STA 8B AIM-9 PWR PH C (35A1) P/O K41 - STA 8B (RIGHT GLOVE RELAY BOX 772A1)	08Q08	AGL 347	IWSFD FIG. 19 ZONE 4B, 20A 55A, 57A	347
379	ENABLE DRIVER	V= 28 VDC	ARMAMENT PANEL (85A1) (AIM-9 SELECT 28 VDC)				CB31 (5A) AWG-15 DC (36A1)	02DA4	YAL 379	IWSFD FIG.19 ZONE 1C, 8B 9A	379
380	ENABLE DRIVER	V= 28 VDC	ARMAMENT PANEL (85A1) (AIM-9 STATION SELECT 28 VDC)				CB31 (5A) AWG-15 DC (36A1)	02DA5	YAL 380	IWSFD FIG.19 ZONE 1C, 8A 9B	380

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 19 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
338	AGL 338	N/A	338	3	R. MAIN BUS	IWSFD FIG. 16 ZONE 3C, 19C	POWER SWITCHING UNIT (85A2) - STATION 1 COOL PWR (28 VDC) = 28 VDC RIGHT MAIN BUS ENERGIZED
339	AGL 339	N/A	339	3	R. MAIN BUS	IWFSD FIG. 16 ZONE 3C, 19C	POWER SWITCHING UNIT (85A2) - STATION 8 COOL PWR (28 VDC) = 28 VDC RIGHT MAIN BUS ENERGIZED
340	AGL 340 = AGS 257	257	340	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 3C, 19A 38B, 57A	SIDEWINDER LAUNCHER (STATION 1A OUTBOARD) - STA-1A 28 VDC PWR = STATION 1A SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 1A ONBOARD)
341	AGL 341 = AGS 257	257	341	1	ESS. NO. 1 BUS	IWSFD FIG. 19 ZONE 4A, 19A 38A, 57A	SIDEWINDER LAUNCHER (STATION 1A OUTBOARD) - STA-1A 115 VAC φB = STATION 1A SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 1A ONBOARD)
342	AGL 342 = AGS 258	258	342	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 3C, 19A 43B, 57A	SIDEWINDER LAUNCHER (STATION 1B INBOARD) - STA-1B - 28 VDC PWR = STATION 1B SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 1B ONBOARD)
343	AGL 343 = AGS 258	258	343	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 4B, 19A 43B, 57A	SIDEWINDER LAUNCHER (STATION 1B INBOARD) - STA-1B 115 VAC φC = STATION 1B SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 1B ONBOARD)
344	AGL 344 = AGS 259	259	344	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 3C, 20A 50B, 57A	SIDEWINDER LAUNCHER (STATION 8A OUTBOARD) - STA-8A 28 VDC PWR = STATION 8A SIDEWINDER PWR INTLK (28 VDC RTN) (SIDEWINDER 8A ONBOARD)
345	AGL 345 = AGS 259	259	345	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 4B, 20A 50A, 57A	SIDEWINDER LAUNCHER (STATION 8A OUTBOARD) - STA-8A 115 VAC φB = STATION 8A SIDEWINDER-PWR INTLK (28 VDC RTN) (SIDEWINDER 8A ONBOARD)
346	AGL 346 = AGS 260	260	346	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 3C, 20A 55B, 57A	SIDEWINDER LAUNCHER (STATION 8B INBOARD) - STA-8B 28 VDC PWR = STATION 8B SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 8B ONBOARD)
347	AGL 347 = AGS 260	260	347	3	R. MAIN BUS	IWSFD FIG. 19 ZONE 4B, 20A 55A, 57A	SIDEWINDER LAUNCHER (STATION 8B INBOARD) - STA-8B 115 VAC φC = STATION 8B SIDEWINDER - PWR INTLK (28 VDC RTN) (SIDEWINDER 8B ONBOARD)
379	YAL 379 = YAS 279	279	379	1	ESS. NO. 1 BUS	IWSFD FIG. 19 ZONE 1C, 8B, 9A	ARMAMENT PANEL - AIM-9 SELECT 28 VDC = WEAPON SELECTOR - SW
380	YAL 380 = YAS 280	280	380	1	ESS. NO. 1 BUS	IWSFD FIG. 19 ZONE 1C, 8A, 9B	ARMAMENT PANEL - AIM-9 STATION SELECT 28 VDC = MSL STEPPING SW - DEPRESSED

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 20 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
261	STA 4 AIM-7 PWR - ENABLE	AGS 261	LOGIC TIMING CONTROL C-90341/ AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K45-STA 4 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D12	IWSFD FIG. 20 ZONE 64A, 5A	348 349 350	EXTERNAL SIGNAL ADAPTER
262	STA 5F AIM-7 PWR - ENABLE	AGS 262	LOGIC TIMING CONTROL C-90341/ AWG-9(27A24A3) (720	FS 460	RELAY DRIVER SIGNAL		K46-STA 5 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D13	IWSFD FIG. 20 ZONE 64A, 5A	351 352 353	EXTERNAL SIGNAL ADAPTER
263	STA 3F AIM-7 PWR - ENABLE	AGS 263	LOGIC TIMING CONTROL C-90341/ AWG-9(27A24A3) (720	FS 460	RELAY DRIVER SIGNAL		K44-STA 3 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D14	IWSFD FIG. 20 ZONE 64A, 5B	354 355 356	EXTERNAL SIGNAL ADAPTER
264	STA 6F AIM-7 PWR - ENABLE	AGS 264	LOGIC TIMING CONTROL C-90341/ AWG-9(27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K47-STA 6 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D15	IWSFD FIG. 20 ZONE 64B, 5B	357 358 359	EXTERNAL SIGNAL ADAPTER
265	STA 1B AIM-7 PWR - ENABLE	AGS 265	LOGIC TIMING CONTROL C-90341/ AWG-9(27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K43-STA 1 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D16	IWSFD FIG. 20 ZONE 64A, 5C	360 361 362	EXTERNAL SIGNAL ADAPTER
266	STA 8B AIM-7 PWR - ENABLE	AGS 266	LOGIC TIMING CONTROL C-90341/ AWG-9(27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K48-STA 8 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D17	IWSFD FIG. 20 ZONE 64B, 5C	363 364 365	EXTERNAL SIGNAL ADAPTER
267	MSL AUX PWR ENABLE	AGS 267	LOGIC TIMING CONTROL C-90341/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K49-MSL AUX (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D18	IWSFD FIG. 20 ZONE 60A, 6C	366 367 368	EXTERNAL SIGNAL ADAPTER
268	AIM 54 HTR PWR - ON	AGS 268	WEAPON CONTROL SYSTEM AN/AWG-9 AND AIM 54 LIQUID COOLING SYSTEM	FS 460	RELAY DRIVER SIGNAL		K51 - AIM 54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	N/A	05D10	IWSFD FIG. 20 ZONE 7A	369 370 371 372 373 374	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 20 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
269	STA 1B AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 269	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K45-STA 1 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	N/A	05D11	IWSFD FIG. 20 ZONE 60C	383 389	EXTERNAL SIGNAL ADAPTER
270	STA 3F AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 270	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K46-STA 3 (LEFT GLOVE RELAY BOX 773A1)	N/A	05D12	IWSFD FIG. 20 ZONE 60C	384 391	EXTERNAL SIGNAL ADAPTER
271	STA 4F AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 271	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K47-STA 4 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	N/A	05D13	IWSFD FIG. 20 ZONE 60C	385 394	EXTERNAL SIGNAL ADAPTER
272	STA 5F AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 272	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K48-STA 5 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	N/A	05D14	IWSFD FIG. 20 ZONE 60C	386 393	EXTERNAL SIGNAL ADAPTER
273	STA 6F AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 273	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K49-STA 6 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	N/A	05D15	IWSFD FIG. 20 ZONE 60C	387	EXTERNAL SIGNAL ADAPTER
274	STA 8B AIM-7 BATTERY-ARM AND HYDR-ENABLE	AGS 274	LOGIC TIMING CONTROL C-9034l/AWG-9 (27A24A3) (720)	FS 460	RELAY DRIVER SIGNAL		K50-STA 8 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	N/A	05D16	IWSFD FIG. 20 ZONE 60C	388 390 392	EXTERNAL SIGNAL ADAPTER
275	AIM-7 MOTOR FIRE-SEL	AGS 275	ARMAMENT PANEL (85A1)	NFO LEFT VERTICAL CONSOLE FS 300	ENABLE SIGNAL		POWER SWITCHING UNIT (85A2)	N/A	05D17	IWSFD FIG. 20 ZONE 20C	390 393 391 394 392	EXTERNAL SIGNAL ADAPTER
281	WEAPON SELECTOR SW-PH SP	YAS 281	CONTROL STICK (20A4) HAND GRIP (20A4A2)	PILOT'S CENTER CONSOLE FS 225	1 POLE 4 POSITION SWITCH	PH SP=SWITCHED 28 VDC	ARMAMENT PANEL (85A1)	N/A	02P24	IWSFD FIG. 20 ZONE 2C	381	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
348	AC-1 POLE	V= 115 VAC øA	STA 4F AIM-7 PWR (115 VAC PH A) MSL UMB (STA 4F) 273 P100 (B) - J				CB47 (15A) STA 4/5 AIM-7 PH A (35A5) P/O K45 STA 4 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q09	AGL 348	IWSFD FIG.20 ZONE 1A, 5A 64A, 27B	348
349	AC-1 POLE	V= 115 VAC øB	STA 4F AIM-7 PWR MSL UMB (STA 4F) 273 P100 (8) - W				CB45 (15A) STA 4/5 AIM-7 PH B (35A5) P/O K45 STA 4 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q10	AGL 349	IWSFD FIG.20 ZONE 2A, 5A 64A, 27B	349
350	AC-1 POLE	V= 115 VAC øC	STA 4F AIM-7 PWR MSL UMB (STA 4F) 273 P100 (B) - X				CB41 (15A) STA 4/5 AIM-7 PH C (35A5) P/O K45 STA 4 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q11	AGL 350	IWSFD FIG.20 ZONE 3A, 5A 64A, 27B	350
351	AC-1 POLE	V= 115 VAC øA	STA 5F AIM-7 PWR MSL UMB (STA 5F) 273 P100 (C)-J				CB47 (15A) STA 4/5 AIM-7 PH A (35A5) P/O K46 STA 5 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q12	AGL 351	IWSFD FIG.20 ZONE 1A, 5A 64A, 28B	351
352	AC-1 POLE	V= 115 VAC øB	STA 5F AIM-7 PWR MSL UMB (STA 5F) 273 P100 (3)-W				CB45 (15A) STA 4/5 AIM-7 PH B (35A5) P/O K46 - STA 5 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q13	AGL 352	IWSFD FIG.20 ZONE 2A, 5A 64A, 27B	352
353	AC-1 POLE	V= 115 VAC øC	STA 5F AIM-7 PWR MSL UMB (STA 5F) 273 P100 (3)-X				CB41 (15A) STA 4/5 AIM-7 PA C (35A5) P/O K46-STA 5 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q14	AGL 353	IWSFD FIG.20 ZONE 3A, 5A 64A, 27B	353
354	AC-1 POLE	V= 115 VAC øA	STA 3F AIM-7 PWR MSL UMB (STA 3F) 273 P100 (A)-J				CB40 (15A) STA 3/6 AIM-54 PUMP PH A (35A5) P/O K44-STA 3 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q15	AGL 354	IWSFD FIG.20 ZONE 1A, 5B 25B, 64A	354

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
355	AC-1 POLE	V= 115 VAC øB	STA 3F AIM-7 PWR MSL UMB (STA 3F) 273 P100 (A)-W				CB38 (15A) STA 3/6 AIM-7/AIM-54 PUMP PA B (35A5) P/O K44 - STA 3 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q16	AGL 355	IWSFD FIG. 20 ZONE 1A, 5B, 25B, 64A	355
356	AC-1 POLE	V= 115 VAC øC	STA 3F AIM-7 PWR MSL UMB (STA 3F) 273 P100 (A)-X				CB35 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH C (35A5) P/O K44 - STA 3 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q17	AGL 356	IWSFD FIG. 20 ZONE 3A, 5B, 25B, 64A	356
357	AC-1 POLE	V= 115 VAC øA	STA 6F AIM-7 PWR MSL UMB (STA 6F) 273 P100 (D)-J				CB40 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH A (35A5) P/O K47 - STA 6 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q18	AGL 357	IWSFD FIG. 20 ZONE 1A, 5B, 26B, 64B	357
358	AC-1 POLE	V= 115 VAC øB	STA 6F AIM-7 PWR MSL UMB (STA 6F) 273 P100 (D)-W				CB38 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH B (35A5) P/O K47 - STA 6 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q19	AGL 358	IWSFD FIG. 20 ZONE 2A, 5B, 26B, 64B	358
359	AC-1 POLE	V= 115 VAC øC	STA 6F AIM-7 PWR MSL UMB (STA 6F) 273 P100 (D)-X				CB35 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH C (35A5) P/O K47 - STA 6 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q20	AGL 359	IWSFD FIG. 20 ZONE 3A, 5B, 26B, 64B	359
360	AC-1 POLE	V= 115 VAC øA	STA 1B AIM-7 PWR MSL UMB (STA 1B) 782A3F12-J				CB34 (15A) STA 1/8 AIM-7 PH A (35A5) P/O K43-STA 1 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q21	AGL 360	IWSFD FIG. 20 ZONE 1A,5B 29, 64A	360

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
361	AC-1 POLE	V= 115 VAC øB	STA 1B AIM-7 PWR MSL UMB (STA 1B) 782A3P12-W				CB34 (15A) STA 1/8 AIM-7 PH B (35A5) P/O K43 - STA 1 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q22	AGL 361	IWSFD FIG. 20 ZONE 1B, 5B, 29B, 64A	361
362	AC-1 POLE	V= 115 VAC øC	STA 1E AIM-7 PWR MSL UMB (STA 1B) 782AP12-X				CB29 (15A) STA 1/8 AIM-7 PH C (35A5) P/O K43-STA 1 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q23	AGL 362	IWSFD FIG. 20 ZONE 1C, 5C, 29B, 64A	362
363	AC-1 POLE	V= 115 VAC øA	STA 8B AIM-7 PWR MSL UMB (STA 8B) 282A3P12-J				CB34 (15A) STA 1/8 AIM-7 PH A (35A5) P/O K48 - STA 8 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q24	AGL 363	IWSFD FIG. 20 ZONE 1A, 5C, 32B, 64B	363
364	AC-1 POLE	V= 115 VAC øB	STA 8B AIM-7 PWR MSL UMB (STA 8B) 782A3P12-W				CB32 (15A) STA 1/8 AIM-7 PH B (35A5) P/O K48-STA 8 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q25	AGL 364	IWSFD FIG. 20 ZONE 1B, 5C, 32B, 64B	364
365	AC-1 POLE	V= 115 VAC øC	STA 8B AIM-7 PWR MSL UMB (STA 8B) 782A3P12-X				CB29 (15A) STA 1/8 AIM-7 PH C (35A5) P/O K48 - STA 8 AIM-7 PWR (RIGHT GLOVE RELAY BOX 772A1)	08Q26	AGL 365	IWSFD FIG. 20 ZONE 1C, 5C, 32B, 64B	365
366	AC-1 POLE	V=115 VAC øA I= 10A	POWER SUPPLY PP-6675/AWG-9 (27A24A1) (730)				CB25 (10A) MSL AUX PH A (35A5) P/O K49 - MSL AUX (RIGHT GLOVE RELAY BOX 772A1)	08Q27	AGL 366	IWSFD FIG. 20 ZONE 1A, 6C, 34A, 60A	366
367	AC-1 POLE	V=115 VAC øB I= 10A	POWER SUPPLY PP-6675/AWG-9 (27A24A1) (730)				CB22 (10A) MSL AUX PH B (35A5) P/O K49 - MSL AUX (RIGHT GLOVE RELAY BOX 772A1)	08Q28	AGL 367	IWSFD FIG. 20 ZONE 1B,6C 34A, 60A	366

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
368	AC-1 POLE	V= 115 VAC øC I= 10A	POWER SUPPLY PP-6675/AWG-9 (27A24A1) (730)				CB20 (10A) MSL AUX PH C (35A5) P/O K49 - MSL AUX (RIGHT GLOVE RELAY BOX 772A1)	08Q29	AGL 368	IWSFD FIG. 20 ZONE 1C, 6C 34A, 60A	367
369	AC-1 POLE	V= 115 VAC øC	STA 5R AIM-54 MSL HTR PWR MSL UMB J1-108				CB42 (15A) MSL HTR PH C (35A5) P/O K51 - AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q30	AGL 369	IWSFD FIG.20 ZONE 1C, 7A 101A , 105A	369
370	AC-1 POLE	V= 115 VAC øC	STA 6R AIM-54 MSL HTR PWR MSL UMB J1-108				CB42 (15A) MSL HTR PH C (35A5) P/O K51 AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q31	AGL 370	IWSFD FIG.20 ZONE 1C, 7A 101A	370
371	AC-1 POLE	V= 115 VAC øB	STA 3R AIM-54 MSL HTR PWR MSL UMB J1-108				CB43 (15A) MSL HTR PH B (35A5) P/O K51 - AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q32	AGL 371	IWSFD FIG.20 ZONE 1B, 7A 93B	371
372	AC-1 POLE	V= 115 VAC øB	STA 4R AIM-54 MSL HTR PWR MSL UMB J1-108				CB43 (15A) MSL HTR PH B (35A5) P/O K51 - AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q33	AGL 372	IWSFD FIG.20 ZONE 1B, 7A 95A, 97A	372
373	AC-1 POLE	V= 115 VAC øA	STA 1B AIM-54 MSL HTR PWR MSL UMB J1-108				CB46 (15A) MSL HTR PH A (35A5) P/O K51 - AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q34	AGL 373	IWSFD FIG.20 ZONE 1A, 7A 89C	373
374	AC-1 POLE	V= 115 VAC øA	STA 8B AIM-54 MSL HTR PWR MSL UMB J1-108				CB46 (15A) MSL HTR PH A (35A5) P/O K51-AIM-54 HTR PWR (LEFT GLOVE RELAY BOX 773A1)	08Q35	AGL 374	IWSFD FIG.20 ZONE 1A, 7A 91C	374

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
381	ENABLE DRIVER	V= 28 VDC	ARMAMENT PANEL (85A1) (MISSILE SELECT 28 VDC)				CB11 (5A) AWG-15 DC (36A1)		YAL 381	IWSFD FIG.20 ZONE 14A, 3C	381
383	DC-1 POLE	V= 28 VDC	STA 1B BATTERY ARM (28 VDC) MSL UMB 782A3P12-J				CB15 (10A) R AIM-7 BTRY ARM (36A4) P/O K45-STA 1 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q36	AGL 383	IWSFD FIG.20 ZONE 3A, 7B 30B, 60C	383
384	DC-1 POLE	V= 28 VDC	STA 3F BATTERY ARM (28 VDC) MSL UMB 273P100(A) -J				CB15 (10A) R AIM-7 BTRY ARM (36A4) P/O K46 - STA 3 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q37	AGL 384	IWSFD FIG.20 ZONE 3A, 7B 25B, 60C	384
385	DC-1 POLE	V= 28 VDC	STA 4F BATTERY ARM (28 VDC) MSL UMB 273P100 (B)-J				CB15 (10A) R AIM-7 BTRY ARM (36A4) P/O K47 - STA 4 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q38	AGL 385	IWSFD FIG.20 ZONE 3A, 7C 26B, 60C	385
386	DC-1 POLE	V= 28 VDC	STA 5F BATTERY ARM (28 VDC) MSL UMB 273P100 (C)-J				CB16 (10A) L AIM-7 BTRY ARM (36A4) P/O K48 - STA 5 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q39	AGL 386	IWSFD FIG.20 ZONE 3B, 7C 27B, 60C	386
387	DC-1 POLE	V= 28 VDC	STA 6F BATTERY ARM (28 VDC) MSL UMB 273P100 (D)-J				CB16 (10A) L AIM-7 BTRY ARM (36A4) P/O K49 - STA 6 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q40	AGL 387	IWSFD FIG.20 ZONE 3B, 7C 26B, 60C	387
388	DC-1 POLE	V= 28 VDC	STA 8B BATTERY ARM (28 VDC) MSL UMB 782A3P12-J				CB16 (10A) L AIM-7 BTRY ARM (36A4) P/O K50 - STA 8 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1)	08Q41	AGL 388	IWSFD FIG.20 ZONE 3B, 7B 31C, 60C	388

TABLE II P-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 6

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
389	DC-1 POLE	V= 28 VDC	STA 1B MOTOR FIRE A AND B SPARROW LAUNCHER (STA 1B, 85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K45 STA 1 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q42	AGL 389	IWSFD FIG.20 ZONE 3A, 7A 21B, 22C, 29C 60C	389
390	DC-1 POLE	V= 28 VDC	STA 8B MOTOR FIRE A AND B SPARROW LAUNCHER (STA 8B, 85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K50 STA 8 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q43	AGL 390	IWSFD FIG.20 ZONE 3A, 8B 21B, 22C, 60C	390
391	DC-1 POLE	V= 28 VDC	STA 3F MOTOR FIRE A AND B SPARROW LAUNCHER (STA 3F) (85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K46 STA 3 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q44	AGL 391	IWSFD FIG.20 ZONE 3A, 8B 21B, 22C, 60C	391
392	DC-1POLE	V= 28 VDC	STA 6F MOTOR FIRE A AND B SPARROW LAUNCHER (STA 6F) (85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K49 STA 6 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q45	AGL 392	IWSFD FIG.20 ZONE 3A, 8B 21B, 22C, 60C 26C	392

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 20 SHEET 7

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
393	DC-1 POLE	V= 28 VDC	STA 5F MOTOR FIRE A AND B SPARROW LAUNCHER (STA 5F) (85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K48 STA 5 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q46	AGL 393	IWSFD FIG.20 ZONE 3A, 7C 21B, 22C, 60C 28C	393
394	DC-1 POLE	V= 28 VDC	STA 4F MOTOR FIRE A AND B SPARROW LAUNCHER (STA 4F) (85A3)				CB5 (10A) MOTOR FIRE A CB4 (10A) MOTOR FIRE B (36A4) P/O K47 STA 4 AIM-7 BTRY (LEFT GLOVE RELAY BOX 773A1) P/O POWER SWITCHING UNIT (85A2)	08Q47	AGL 394	IWSFD FIG.20 ZONE 3A, 6C 21B, 22C, 60C,27C	394
395	DC-1 POLE	V= 28 VDC I= 5A	a)POWER SUPPLY PP-6675/AWG-69 (27A24A1) (730) b) MISSILE DATA COUNTER (27A24A2) (710) c) MISSILE CONTROLLER (27A24A2) (720)	100%			CB46 (5A) MSL AUX SUB SYS (36A4)	08Q48	AGL 395	IWSFD FIG.20 ZONE 3A, 34A	395
396	DC-1 POLE	V= 28 VDC	STA 1B, 3R, 4R, 5R, 6R, 8B AIM-54 MSL (28 VDC) PHOENIC LAUNCHER (786A6)				CB49 (5A) AIM-54 MSL (36A4)	08Q49	AGL 396	IWSFD FIG.20 ZONE 3B, 90C 94A, 98A, 106A 102A, 92C	396

TABLE III F-14 SOSTEM BOOLEAN EQUATIONS

FIGURE 20 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
348	AGL 348 = AGS 261	261	348	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 3A, 64A, 27B	STA 4F AIM-7 PWR (115VAC PH A) = STA 4 AIM-7 PWR ENABLE
349	AGL 349 = AGS 261	261	349	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 2A, 5A, 64A, 27B	STA 4F AIM-7 PWR (115VAC PH B) = STA 4 AIM-7 PWR ENABLE
350	AGL 350 = AGS 261	261	350	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 5A 64A, 27B	STA 4F AIM-7 PWR (115VAC PH C) = STA 4 AIM-7 PWR ENABLE
351	AGL 351 = AGS 262	262	351	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 5A 64A, 28B	STA 5F AIM-7 PWR (115VAC PH A) = STA 5F AIM-7 PWR ENABLE
352	AGL 352 = AGS 262	262	352	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 2A, 5A, 64A, 27B	STA 5F AIM-7 PWR (115VAC PH B) = STA 5F AIM-7 PWR ENABLE
353	AGL 353 = AGS 262	262	352	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 5A 64A, 27B	STA 5F AIM-7 PWR (115VAC PH C) = STA 5F AIM-7 PWR ENABLE
354	AGL 354 = AGS 263	263	354	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 5B 64A, 25B	STA 3F AIM-7 PWR (115VAC PH A) = STA 3F AIM-7 PWR ENABLE
355	AGL 355 = AGS 263	263	355	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 2A, 5B 25B, 64A	STA 3F AIM-7 PWR (115VAC PH B) = STA 3F AIM-7 PWR ENABLE
356	AGL 356 = AGS 263	263	356	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 5B 25B, 64A	STA 3F AIM-7 PWR (115VAC PH C) = STA 3F AIM-7 PWR ENABLE
357	AGL 357 = AGS 264	264	357	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 5B 26B, 64B	STA 6F AIM-7 PWR (115VAC PH A) = STA 6F AIM-7 PWR ENABLE
358	AGL 358 = AGS 264	264	358	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 2A, 5B 26B, 64B	STA 6F AIM-7 PWR (115VAC PH B) = STA 6F AIM-7 PWR ENABLE

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 20 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
359	AGL 359 = AGS 264	264	359	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 5B 26B, 64B	STA 6F AIM-7 PWR (115VAC PH C) = STA 6F AIM-7 PWR ENABLE
360	AGL 360 = AGS 265	265	360	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 5B 29B, 64A	STA 1B AIM-7 PWR (115VAC PH A) = STA 1B AIM-7 PWR ENABLE
361	AGL 361 = AGS 265	265	361	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1B, 5B 29B, 64A	STA 1B AIM-7 PWR (115VAC PH B) = STA 1B AIM-7 PWR ENABLE
362	AGL 362 = AGS 265	265	362	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1C, 5C 29B, 64A	STA 1B AIM-7 PWR (115VAC PH C) = STA 1B AIM-7 PWR ENABLE
363	AGL 363 = AGS 266	266	363	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 5C 32B, 64B	STA 8B AIM-7 PWR (115VAC PH.A) = STA 88 AIM-7 PWR ENABLE
364	AGL 364 = AGS 266	266	364	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1B, 5C 32B, 64B	STA 8B AIM-7 PWR (115VAC PH.B) = STA 8B AIM-7 PWR ENABLE
365	AGL 365 = AGS 266	266	365	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1C, 5C 32B, 64B	STA 8B AIM-7 PWR (115VAC PH.C) = STA 8B AIM-7 PWR ENABLE
366	AGL 366 = AGS 267	267	366	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 6C 34A, 60A	MSL AUX PWR (115VAC PH.A) = MSL AUX PWR - ENABLE
367	AGL 367 = AGS 367	267	367	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1B, 6C 34A, 60A	MSL AUX PWR (115VAC PH.B) = MSL AUX PWR - ENABLE
368	AGL 368 = AGS 267	267	368	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1C, 6C 34A, 60A	MSL AUX PWR (115VAC PH.C) = MSL AUX PWR - ENABLE
369	AGL 369 = AGS 268	268	369	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1C, 7A 103A, 105A	STA 5R AIM-54 MSL HTR PWR - 115VAC PH C = AIM-54 HTR PWR - ON

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 20 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
370	AGL 370 = AGS 268	268	370	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1C, 7A 10A	STA 6R AIM-54 MSL HTR PWR - 115VAC PH L = AIM-54 HTR PWR - ON
371	AGL 321 = AGS 268	268	371	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1B, 7A 93B	STA 3R AIM-54 MSL HTR PWR - 115VAC PH B = AIM-54 HTR PWR - ON
372	AGL 372 = AGS 268	268	372	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1B, 7A 95A, 97A	STA 4R AIM-54 MSL HTR PWR - 115VAC PH.B = AIM-54 HTR PWR - ON
373	AGL 373 = AGS 268	268	373	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 7A 89C	STA 1B AIM-54 MSL HTR PWR - 115VAC PH.A = AIM-54 HTR PWR - ON
374	AGL 374 = AGS 268	268	374	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 1A, 7A 91C	STA 8B AIM-54 MSL HTR PWR - 115VAC PH.A = AIM-54 HTR PWR - ON
381	YAL 381 = YAS 281	281	381	1	ESS. NO. 1 BUS	IWSFD FIG. 20 ZONE 14A, 3C	ARMAMENT PANEL - MISSILE SELECT 28VDC = WEAPON SELECTOR SW - PH SP
383	AGL 383 = AGS 269	269	383	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 7B, 30B, 60C	STA 1B BATTERY ARM (28VDC) = STA. 1B AIM-7 BATTERY-ARM AND HYDR - ENABLE
384	AGL 384 = AGS 270	270	384	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 7B, 25B, 60C	STA 3F BATTERY ARM (28VDC) = STA 3F AIM-7 BATTERY-ARM AND HYDR - ENABLE
385	AGL 385 = AGS 271	271	385	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 7C 26B, 60C	STA 4F BATTERY ARM (28VDC) = STA 4F AIM-7 BATTERY-ARM AND HYDR - ENABLE
386	AGL 386 = AGS 272	272	386	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3B, 7C 27B, 60C	STA 5F BATTERY ARM (28VDC) = STA 5F AIM-7 BATTERY - ARM AND HYDR - ENABLE
387	AGL 387 = AGS 273	273	387	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3B, 7C 26B, 60C	STA 6F BATTERY ARM (28VDC) = STA 6F AIM-7 BATTERY - ARM AND HYDR - ENABLE
388	AGL 388 = AGS 274	274	388		L. MAIN BUS	IWSFD FIG. 20 ZONE 3B, 7B 31C, 60C	STA 8B BATTERY ARM (28VDC) = STA 8B AIM-7 BATTERY - ARM AND HYDR - ENABLE

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 20 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
389	AGL 389 = AGS 269 = AGS 275	269 275	389	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 7A 21B, 22C, 29C 60C	STA 1B MOTOR FIRE A AND = STA 1B AIM-7 BATTERY - ARM AND HYDR - ENABLE AND AIM-7 MOTOR FIRE-SEL
390	AGL 390 = AGS 274 = AGS 275	274 275	390	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 8B 21B, 20C, 60C	STA 8B MOTOR FIRE A AND B = STA 8B AIM-7 BATTERY-ARM AND HYDR-ENABLE AND AIM-7 MOTOR FIRE-SEL
391	AGL 391 = AGS 270 = AGS 275	270 275	391	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 8B, 21B 20C, 60C, 20C	STA 3F MOTOR FIRE A AND B = STA 3F AIM-7 BATTERY-ARM AND HYDR-ENABLE AND AIM-7 MOTOR FIRE-SEL
392	AGL 392 = AGS 273 = AGS 275	274 275	392	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 8B 21B, 20C, 60C 26C	STA 6F MOTOR FIRE A AND B = STA 6F AIM-7 BATTERY - ARM AND HYDR-ENABLE AND AIM-7 MOTOR FIRE-SEL
393	AGL 393 = AGS 272 AGS 275	272 275	393	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 7C 21B, 22C, 60C 28C	STA 5F MOTOR FIRE A AND B= STA 5F AIM-7 BATTERY-ARM AND HYDR - ENABLE AND AIM-7 MOTOR FIRE - SEL
394	AGL 394 = AGS 271 AGS 275	271 275	394	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 8C, 21B, 22C, 60C 27C	STA 4F MOTOR FIRE A AND B = STA 4F AIM-7 BATTERY - ARM AND HYDR - ENABLE AND AIM-7 MOTOR FIRE - SEL
395	AGL 395	N/A	395	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3A, 34A	MISSILE DATA CONVERTER AND MISSILE CONTROLLER AND POWER SUPPLY PP-6675/AWG-9 (28VDC) = 28VDC LEFT MAIN BUS ENERGIZED
396	AGL 396	N/A	396	3	L. MAIN BUS	IWSFD FIG. 20 ZONE 3B, 90C 94A, 98A, 106A 102A, 92C	STA 1B, 3R, 4R, 5R, 6R, 8B AIM-54 MSL (28VDC) = 28VDC LEFT MAIN BUS - ENERGIZED

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 27 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
276	DATA LINK ANTENNA SELECT	RUS 276	DATA LINK SYSTEM	FS 300	RELAY DRIVER SIGNAL	OPEN/GND	DATA LINK TRANSMISSION SWITCH (23S1)	N/A	05D18	IWSFD FIG. 27 ZONE 14B	376	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 27 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
375	DC-1 POLE	V=28VDC I= 5A	NO. 2 UHF RADIO PANEL -28VDC (159A1)	100%			CB69 (5A) UHF NO. 2 (36A2)	03Q18	HUL 375	IWSFD FIG. 27 ZONE 1B, 13A	375
376	RELAY DRIVER	V=28VDC	DATA LINK TRANSMISSION LINE SWITCH (13S1) RELAY				CB18 (3A) ASW-27 (36A4)		HUL 376	IWSFD FIG. 27 ZONE 1C, 14C	376

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 27 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
375	RUL 375	N/A	375	2	ESS. NO. 2 BUS	IWSFD FIG. 20 ZONE 1B, 13A	NO. 2 UHF RADIO PANEL (28VDC) = NO. 2 28VDC BUS ENERGIZED
376	RUL 376 = RUS 276	276	376	3	LEFT MAIN BUS	IWSFD FIG. 20 ZONE 1C, 14C	DATA LINK TRANSMISSION LINE SWITCH - ENERGIZED = DATA LINK ANTENNA - SELECT

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 29 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
509	LEFT AUX FLAP-EXTEND	CKS 509	LEFT AUX FLAP EXTEND SWITCH (51S3)	LEFT WING FS 600 BL 130	SPDT LIMIT SWITCH	OPEN/GRD	FAIL MONITOR LIGHT DRIVER P/O ADC (05A1)	LEFT AUX FLAP EXTEND SW (51S3)	06P24	IWSFD FIG. 29 ZONE 3A	521	SOLID STATE
510	RIGHT AUX FLAP-EXTEND	CKS 510	RIGHT AUX FLAP EXTEND SWITCH (51S4)	RIGHT WING FS 600 BL 130	SPDT LIMIT SWITCH	OPEN/GRD	FAIL MONITOR LIGHT DRIVER P/O ADC (05A1)	RIGHT AUX FLAP EXTEND SW (51S4)	07P23	IWSFD FIG. 29 ZONE 3B	522	SOLID STATE
511	RIGHT INBOARD MAN. FLAP-EXTEND	CKS 511	RIGHT INBOARD MANEUVER FLAP SWITCH (51S2)	RIGHT WING TRAILING FS 600 BL 200	DPDT LIMIT SWITCH	OPEN/GRD	MODE LOGIC PROCESSOR P/O ADC (05A1)	RIGHT INBOARD MANEUVER FLAP SW (51S2)	07P24	IWSFD FIG. 29 ZONE 3B	523	SOLID STATE
512	LEFT INBOARD MAN FLAP-EXTEND	CKS 512	LEFT INBOARD MANEUVER FLAP SWITCH (51S1)	LEFT WING TRAILING FS 600 BL 200	DPDT LIMIT SWITCH	OPEN/GRD	MODE LOGIC PROCESSOR P/O ADC (05A1)	LEFT INBOARD MANEUVER FLAP SW (51S1)	06P25	IWSFD FIG. 29 ZONE 3B	523	SOLID STATE
513	WING POS-> 21°	CKS 513	WING POS SW (51A5)	FS 540 WL 170	SPDT LIMIT SWITCH	OPEN/GRD	MODE LOGIC PROCESSOR P/O ADC (05A1)	N/A	05P08	IWSFD FIG. 29 ZONE 2C	524	RESISTOR DIVIDER ADAPTER
514	WING POS-> 50°	DKS 514	WING POS SW (51A5)	FS 540 WL 170	SPDT LIMIT SWITCH	OPEN/GRD	MODE LOGIC PROCESSOR P/O ADC (05A1)	N/A	05P09	IWSPD FIG. 29 ZONE 2C	525	RESISTOR DIVIDER ADAPTER
515	MASTER RESET-DEPRESSED	CKS 515	FUEL MANAGEMENT PANEL (707A1)	PILOT'S LEFT VERTICAL CONSOLE FS 225	MOMENTARY N.O. PUSHBUTTON	OPEN/GRD	FAIL MONITOR LIGHT DRIVER FAIL MONITOR COMPARATOR BIT PROCESSOR P/O ADC (05A1)	MASTER RESET P/O FUEL MANAGEMENT PANEL (707A1)	01P28	IWSFD FIG. 29 ZONE 7C, 13A	526	SOLID STATE
516	WG SWP	MJS 516	MASTER TEST PANEL (734A1)	PILOTS RIGHT SIDE CONSOLE FS 225	ROTARY SW	OPEN/GRD	MODE LOGIC PROCESSOR P/O ADC (05A1)	MASTER TEST SW P/O MASTER TEST PANEL (734A1)	02P25	IWSFD FIG. 29 ZONE 5C, 9C	527	
517	ADC ALTITUDE-RELIABLE	FKS 517	ADC (05A1)	FS 400	RELAY DRIVER SIGNAL	RELIABLE = GND RELIABLE = OPEN/ 28VDC	K42 - ALT RELIABLE RELAY (L. GLOVE RELAY BOX 773A1)	N/A	05D19	IWSFD FIG. 29 ZONE 24B, 45C	377 520	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 29 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
517	AC-3 POLE	V= 115VAC øA,B,C	CHANNEL 1 POWER SUPPLY	100%			P/O RIGHT MAIN AC POWER CONTACTOR (6696K2) P/O LEFT MAIN AC POWER CONTACTOR (66A6K1) AC POWER CONTACTOR ASSY (66A6) P/O GROUND COOLING PRESSURE INTERLOCK SWITCH (55S2) K3 L. AICS/CADC INTLK-AFT COCKPIT RELAY BOX (793A1) CB5 (3A) CHAN 1 CADC øA CB19 (3A) CHAN 1 CADC øB CB20(3A) CHAN 1 CADC øB P/O 1AC ESS CIRCUIT BREAKER PANEL (35A6) CB35(5A) GRD PWR COOLING INTLK-1O DC MAIN CIRCUIT BREAKER (36A4)	02Q11 02Q12 02Q13	XAL 517	IWSFD FIG.29 ZONE 13A, 3A, 2A, 1A	517
518	AC-1 POLE	V= 115VAC øB	WING SWEEP BACKUP CHANNEL POWER SUPPLY	100%			K2 APX-78/R AICS INTLK P/O AFT COCKPIT RELAY BOX (793A1) RIGHT MAIN AC POWER CONTACTOR (66A6K2) LEFT MAIN AC POWER CONTACTOR (66A6R1) P/O AC POWER CONTACTOR ASSY (66A6) GROUND COOLING PRESSURE INTERLOCK SWITCH (55S2) CB35(5A) GRD PWR COOLING INTLK-1O DC MAIN CIRCUIT BREAKER (36A4) CB17(3A) CHAN 2 CADC 1AC ESS CIRCUIT BREAKER PANEL (35A6)	02Q14	XAL 518	IWSFD FIG. 29 ZONE 13B, 3A 2A, 1A, 1B	518

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 29 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
519	DC-1 POLE	V= 28VDC	NFO SERVO PNEUMATIC ALTIMETER POWER SUPPLY (52M4) PILOT SERVO PNEUMATIC ALTIMETER POWER SUPPLY (52M3)	100%			CB35 A/S IND/BARO ALTM DC (36A2) P/O 8 DC ESS 2 CIRCUIT BREAKER PANEL (36A2)	03Q19	FKL 519	IWSFD FIG. 29 ZONE 47B, 47C 1C	519
520	AC-1 POLE	V= 115VAC φB	NFO SERVO PNEUMATIC ALTIMETER SOLINOID & SERVO MOTOR (52M4) PILOT SERVO				P/O K42 ALT RELIABLE LEFT GLOVE RELAY BOX (773A1) CB35 A/S IND/BARO ALTM DC 8 DC ESS 2 CIRCUIT BREAKER PANEL (36A2) CB17 A/S IND/BOARO ALTIM AC 5 AC ESS 2 φA CIRCUIT BREAKER PANEL (35A2)	03Q20	FKL 520	IWSFD FIG. 29 ZONE 47A, 47C 45B, 24B, 2B 1C	520
521	LAMP DRIVER	V= OV DC	FAIL MONITOR LIGHT DRIVER P/O ADC (05A1)				LEFT AUX FLAP EXTEND SW (51S3)	06D32	CKL 521	IWSFD FIG. 29 ZONE 3A, 13A	521
522	LAMP DRIVER	V= OV DC	FAIL MONITOR LIGHT DRIVER P/O ADC (05A1)				RIGHT AUX FLAP EXTEND SW (51S4)	06D33	CKL 522	IWSFD FIG. 29 ZONE 3B, 13A	522
523	ENABLE DRIVER	V= OV DC	MODE LOGIC PROCESSOR P/O ADC (05A1)				RIGHT INBOARD MANEUVER FLAP SW (51S2) LEFT INBOARD MANEUVER FLAP SW (51S1)	06D34	CKL 523	IWSFD FIG. 29 ZONE 3B, 3C, 9C	523
524	ENABLE DRIVER	V= OVDC	MODE LOGIC PROCESSOR P/O ADC (05A1)				P/O WING POS. SW (51A5)	06D35	CKL 524	IWSFD FIG. 29 ZONE 2C, 9C	524
525	ENABLE DRIVER	V= OVDC	MODE LOGIC PROCESSOR P/O ADC (05A1)				P/O WING POS SW (51A5)	06D36	CKL 525	IWSFD FIG. 29 ZONE 2C, 9C	525
526	ENABLE DRIVER	V= OVDC	FAIL MONITOR LIGHT DRIVER FAIL MONITOR COMPARATOR P/O ADC (05A1)				MASTER RESET P/O FUEL MANAGEMENT PANEL (707A1)	06D37	CKL 526	IWSFD FIG. 29 ZONE 7C, 13A	526

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 29 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
527	ENABLE DRIVER	V= OVDC	MODE LOGIC PROCESSOR P/O ADC (05A1)				MASTER TEST SW P/O MASTER TEST PANEL (734A1)	06D38	CKL 527	IWSFD FIG. 29 ZONE 5C, 9C	527
528	ENABLE DRIVER	V= OVDC	MODE LOGIC PROCESSOR P/O ADC (05A1)				P/O K12 WOW RIGHT GLOVE RELAY BOX (772A1)	06D39	CKL 528	IWSFD FIG. 29 ZONE 6C, 13A 9C	528

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 29 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
517	XAL 517 = XAS 003 +XAS 004 + HNS 005	003 004 005	517	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 3A, 2A, 1A	CHANNEL 1 PWR SUPPLY - ON = RIGHT MAIN AC PWR-ON LINE OR LEFT MAIN AC PWR - ON LINE OR GND COOLING PRESS INTLK - HIGH
518	XAL 518 = XAS 003 + XAS 004 + HNS 005	003 004 005	518	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 13B, 3A, 2A 1A, 1B	WING SWEEP BACKUP CHANNEL POWER SUPPLY - ON = RIGHT MAIN AC PWR-ON LINE OR LEFT MAIN AC PWR-ON LINE OR GND COOLING PRESS INTLK-HIGH
519	FKL 519	N/A	519	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 47B, 47C, 1C	NFO AND PILOT SERVO PNEUMATIC ALTIMETER POWER SUPPLY-ON = 28V ESSENTIAL NO. 2 BUS-ON
520	FKL 520 = FKS 517	517	520	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 47A, 47C 45B, 24B, 2B 1C	PILOT MACH-AIRSPEED INDICATOR AND NFO AND PILOT SERVO PNEUMATIC ALTIMETER SOLENOID & SERVOMOTOR-ON = ADC ALTITUDE RELIABLE
521	CKL 521 = CKS 509	509	521	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 3A, 13A	LEFT AUX FLAP EXTEND = LEFT AUX FLAP EXTEND SW-EXTEND
522	CKL 522 = CKS 510	510	522	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 3B, 15A	RIGHT AUX FLAP EXTEND = RIGHT AUX FLAP EXTEND SW-EXTEND
523	CKL 523 = $\overline{(CKS\ 511)}$ $\overline{(CKS\ 512)}$	511 512	523	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 3B, 3C, 9C	MANEUVER FLAPS RETRACTED = RIGHT AND LEFT INBOARD MANEUVER FLAP SWITCHES - EXTEND NOT
524	CKL 524 = CKS 513	513	524	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 2C, 9C	WING SWEEP > 21° = WING POS SW - > 21°
525	CKL 525 = CKS 514	514	525	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 2C, 9C	INHIBIT MANEUVER FLAPS = WING POS - > 50°
526	CKL 526 = CKS 515	515	526	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 7C, 13A	ADC MASTER RESET = MASTER RESET SWITCH - DEPRESSED
527	CKL 527 = MJS 068 • MJS 516	068 516	527	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 5C, 9C	WING SWEEP TEST SELECT = TEST SELECTOR - DEPRESSED AND WG SWP
528	CKL 528 = GDS 002 • GDS 102	002 102	528	2	ESS. NO. 2 BUS	IWSFD FIG. 29 ZONE 6C, 13A, 9C	WOW (TO ADC) = LEFT AND RIGHT MLG-WEIGHT ON WHEELS

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 30 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
191	NOSE STRUT - EXTD	GAS 191	NOSE STRUT SWITCH (74S1) P/O LANDING GEAR CONTROL PANEL	PILOT'S LEFT VERTICAL CONSOLE STA 225	TOGGLE SWITCH DPDTCO (SPRING LOADED TO C.O.)	EXTD = SWITCHED 28VDC OFF = OPEN	EXTENDED SOLINOID P/O NLG TRANSFER VALVE (74L1)	NOSE STRUT SWITCH (74S1)	01P29	IWSFD FIG. 30 ZONE 6B	279	SOLID STATE
192	NOSE STRUT - KNEEL	GAS 192	NOSE STRUT SWITCH (74S1) P/O LANDING GEAR CONTROL PANEL	PILOT'S LEFT VERTICAL CONSOLE STA 225	TOGGLE SWITCH DPDTCO (SPRING LOADED TO C.O.)	KNEEL-SWITCHED 28VDC OFF=OPEN	KNEEL SOLINOID P/O NLG TRANSFER VALVE (74L1)	NOSE STRUT SWITCH (74S1)	01P30	IWSFD FIG. 30 ZONE 6B	280 281 287	SOLID STATE
193	LAUNCH BAR EXTENDED	GAS 193	P/O LAUNCH BAR PROXIMITY SWITCH (74S2)	NLG SHOCK STRUT STA 290 WL 101	PROXIMITY SWITCH	EXTENDED=SWITCHED 28VDC RETRACTED=OPEN	K93 - LAUNCH BAR NOT STOWED (L.GLOVE RELAY BOX 773A1) LAUNCH BAR ADVISORY INDICATOR LITE	LAUNCH BAR PROXIMITY SWITCH (74S2)	03P09	IWSFD FIG. 30 ZONE 5B	281 287	SOLID STATE
194	LEFT THROTTLE < MIL PWR	GAS 194	THROTTLE QUADRANT (711A1)	PILOT'S LEFT SIDE STA 225	LIMIT SWITCH	< MIL PWR = SWITCHED 28VDC > MIL PWR = OPEN	SAME AS ITEM 193	N/A	01P31	IWSFD FIG. 30 ZONE 8C	281 287 573	RESISTOR DIVIDER ADAPTER
195	RIGHT THROTTLE < MIL PWR	GAS 195	THROTTLE QUADRANT (711A1)	PILOT'S LEFT CONSOLE STA 225	LIMIT SWITCH	< MIL PWR = SWITCHED 28VDC > MIL PWR = OPEN	SAME AS ITEM 193	N/A	01P32	IWSFD FIG. 30 ZONE 8C	281 287 573	RESISTOR DIVIDER ADAPTER
196	LAUNCH BAR - ABORT	GAS 196	LAUNCH BAR PANEL (74A1)	PILOT'S LEFT VERTICAL CONSOLE STA 225	TOGGLE SWITCH SPDT	ABORT = SWITCHED 28VDC NORMAL=OPEN	SELECTOR SOLINOID P/O LAUNCH BAR ABORT SELECTOR VALVE (74L3)	LAUNCH BAR ABORT SWITCH	01P33	IWSFD FIG. 30 ZONE 5C	282	SOLID STATE
197	HOOK - STOWED	GGS 197	ARRESTING HOOK NOT STOWED SWITCH (49S1)	AFT STA 750	LIMIT SWITCH DPDT	STOWED = OPEN NOT STOWED = SWITCHED GND	HOOK SOLINOID P/O ARRESTING HOOK CONTROL VALVE (49L1)	N/A	07P25	IWSFD FIG. 30 ZONE 12B	283 287 297	RESISTOR DIVIDER ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 30 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
198	ANTI-SKID/ SPOILER BK BOTH	GKS 198	ANTI-SKID/SPOILER BK SWITCH-56 P/O FUEL MANAGEMENT PANEL (707A1)	PILOT'S LEFT VERTICAL CONSOLE STA 225	TOGGLE SWITCH	BOTH = SWITCHED 28VDC OFF = OPEN	SKID CONTROL BOX (82A1)	ANTI-SKID/SPOILER BK SWITCH (S6)	01P34	IWSFD FIG. 30 ZONE 14B	285 312 313 310 311	SOLID STATE
199	AUTO PILOT ENGAGE NOSE WHEEL STEERING PUSHBUTTON SWITCH - ON	GHS 199	CONTROL STICK GRIP (20A4)	PILOT'S COCKPIT STA 225	PUSHBUTTON	ON=SWITCHED 28VDC OFF=SWITCH 28VDC	K28 - NOSE WHEEL STEERING NO. 2 (L. GLOVE RELAY BOX 773A1)	N/A	02P26	IWSFD FIG. 30 ZONE 5A	286 287	RESISTOR DIVIDER ADAPTER
200	LEFT THROTTLE IDLE	QKS 200	THROTTLE QUADRANT (711A1)	PILOT'S COCKPIT STA 225	LIMIT SWITCH	IDLE = SWITCHED 28VDC > IDLE = OPEN	K91 - NOSE GEAR HYDRAULIC SHUTOFF VALVE RELAY (L. GLOVE RELAY BOX 773A1)	N/A	01P35	IWSFD FIG. 30 ZONE 8B	287 312 313 310 311	RESISTOR DIVIDER ADAPTER
201	RIGHT THROTTLE IDLE	QKS 201	THROTTLE QUADRANT (711A1)	PILOT'S COCKPIT STA 225	LIMIT SWITCH	IDLE = SWITCHED 28VDC > IDLE = OPEN	K91 - NOSE GEAR HYD SHUTOFF VALVE RELAY (L. GLOVE RELAY BOX 773A1)	N/A	01P36	IWSFD FIG. 30 ZONE 8B	287 312 313 310 311	RESISTOR DIVIDER ADAPTER
202	NLG DOOR - UP AND LOCKED	GJS 202	NLG DOOR UP AND LOCKED SWITCH (75S2)	NOSE WHEEL WELL ST 260 WL 120	LIMIT SWITCH (2 PDT)	UP AND LOCKED = SWITCHED GND UNLOCKED = OPEN	a) UP AND LOCKED FLAG P/O WHEELS FLAPS POSITION INDICATOR (78M1) b) DST TRANSIT INDICATOR LITE P/O LANDING GEAR HANDLE (785A1)	NLG DOOR UP AND LOCKED SWITCH (75S2)	02P27	IWSFD FIG. 30 ZONE 19A	290 298	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 30 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
203	LEFT MLG - DOWN AND LOCKED	GDS 203	LEFT MLG DOWN AND LOCKED SWITCH (75S4) P/O DOWNLOCK ACTUATOR	LEFT MLG STA 570 WL 100	LIMIT SWITCH (DPDT)	DOWN AND LOCKED= SWITCHED GND UNLOCKED = OPEN	LEFT MLG DOWN AND LOCKED FLAG P/O WHEELS FLAP POSITION INDICATOR (78M1)	N/A	05P10	IWSFD FIG. 30 ZONE 20A	291 298 299	RESISTOR DIVIDER ADAPTER
204	LEFT MLG DOOR UP AND LOCKED	GJS 204	LEFT MLG DOOR LOCKED UNLOCKED SWITCH (75S7)	LEFT MLG WHEEL WELL STA 570	LIMIT SWITCH (DPDT)	UP AND LOCKED SWITCHED GND UNLOCKED = OPEN	LEFT MLG UP AND LOCKED FLAG P/O WHEELS FLAP POSITION INDICATOR (78M1)	LEFT MLG DOOR LOCKED UNLOCKED SWITCH (75S7)	05P11	IWSFD FIG. 30 ZONE 20B	292 298	SOLID STATE
205	LEFT MLG POSITION - UP AND LOCKED	GJS 205	LEFT MLG DOOR POSITION SWITCH (75S13)	LEFT MLG WHEEL WELL STA 570	LIMIT SWTICH (DPDT)	UP AND LOCKED= SWITCHED GND UNLOCKED = OPEN	LEFT MLG UP AND LOCKED FLAG P/O WHEELS FLAP POSITION INDICATOR (78M1)	LEFT MLG DOOR POSITION SWITCH (75S13)	05P12	IWSFD FIG. 30 ZONE 20B	292 298	SOLID STATE
206	RIGHT MLG DOWN AND LOCKED	GDS 206	RIGHT MLG DOWN AND LOCKED SWITCH (75S9)	RIGHT MLG STA 570 WL 100	LIMIT SWITCH (DPDT)	DOWN AND LOCKED SWITCHED GND UNLOCKED = OPEN	RIGHT MLG DOWN AND LOCKED FLAG P/O WHEELS FLAP POSITION INDICATOR (78M1)	N/A	07P26	IWSFD FIG. 30 ZONE 20C	293 298 299	RESISTOR DIVIDER ADAPTER
207	RIGHT MLG DOOR - UP AND LOCKED	GJS 207	RIGHT MLG DOOR LOCKED UNLOCKED SWITCH (75S6)	RIGHT MLG WHEEL WELL STA 570	LIMIT SWITCH (DPDT)	UP AND LOCKED= SWITCHED GND UNLOCKED = OPEN	RIGHT MLG UP AND LOCKED FLAG P/O WHEELS FLAPS POSITION INDICATOR (78M1)	R. MLG DOOR LOCKED - UNLOCKED SWITCH (75S6)	07P27	IWSFD FIG. 30 ZONE 20B	294 298	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 30 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
208	RIGHT MLG POSITION - UP AND LOCKED	GJS 208	RIGHT MLG DOOR POSITION SWITCH (75S14)	RIGHT MLG WHEEL WELL STA 570	LIMIT SWITCH (DPDT)	UP AND LOCKED = SWITCHED GND UNLOCKED = OPEN	RIGHT MLG UP AND LOCKED FLAG P/O WHEELS FLAPS POSITION INDICATOR (78M1)	R. MLG DOOR POSITION SWITCH (75S14)	07P28	IWSFD FIG. 30 ZONE 20B	294 298	SOLID STATE
209	LEFT BRAKE PRESSURE - > 400 PSI	GCS 209	LEFT BRAKE PRESSURE SWITCH (47S1)	LEFT SIDE STA 410 WL 130	PRESSURE SWITCH	> 400 PSI SWITCHED < 400 PSI = 28VDC SWITCHED 28VDC	AUX BRK/SKID CAUTION LITE P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	LEFT BRAKE PRESSURE SWITCH (47S1)	05P13	IWSFD FIG. 30 ZONE 13A	295	SOLID STATE
210	RIGHT BRAKE PRESSURE - > 400 PSI	GCS 210	RIGHT BRAKE PRESSURE SWITCH (47S2)	LEFT SIDE STA 410 WL 130	PRESSURE SWITCH	> 400 PSI = SWITCHED 28VDC < 400 PSI = SWITCHED 28VDC	SAME AS ITEM 209	LEFT BRAKE PRESSURE SWITCH (47S2)	05P14	IWSFD FIG. ZONE 13A	295	SOLID STATE
211	SKID CONTROL - PWR LOSS	GCS 211	SKID CONTROL BOX (82A1)	NOSE WHEEL WELL STA 260 WL 120	N/A (ENABLE SIGNAL)	ON = 28VDC OFF = OPEN	SAME AS ITEM 209	N/A	05D20	IWSFD FIG. 30 ZONE 15A	295	EXTERNAL SIGNAL ADAPTER
212	LIGHT TEST - ACTIVE	MJS 212	PILOT CAUTION ADVISORY INDICATOR (69A1)	PILOT'S RIGHT SIDE CONSOLE STA 225	ENABLE SIGNAL	ACTIVE = GND INACTIVE = OPEN	DS1 TRANSIT INDICATOR LITE-ET/AL	N/A	07D19	IWSFD FIG. 30 ZONE 17C	297 298	ETERNAL SIGNAL ADAPTER
213	LEFT MLG RETRACTED	GBS 213	LEFT BRACE PROXIMITY SWITCH SWITCH (75S11)	LEFT FUESLAGE STATION 564	PROXIMITY/ RELAY DRIVEN SWITCH	RETRACTED/PWR OFF = SWITCHED GND EXTENDED = OPEN	DS1 TRANSIT INDICATOR LIGHT P/O LANDING GEAR HANDLE (785A1)	LEFT BRACE PROXIMITY SWITCH (75S11)	05P15	IWSFD FIG. 30 ZONE 19A	298 299	SOLID STATE PROXIMITY SWITCH
214	RIGHT MLG RETRACTED	GBS 214	RIGHT BRACE PROXIMITY SWITCH (75S12)	RIGHT FUESLAGE STATION 564	PROXIMITY/ RELAY DRIVEN SWITCH	RETRACTED/PWR OFF = SWITCHED GND EXTENDED = OPEN	DS1 TRANSIT INDICATOR LIGHT P/O LANDING GEAR HANDLE (785SA1)	RIGHT BRACE PROXIMITY SWITCH (75S12)	04P09	IWSFD FIG. 30 ZONE 19A	298 299	SOLID STATE PROXIMITY SWITCH

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 30 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
215	FLAP LEVER - $> 10^{\circ}$	CGS 215	FLAP LEVER P/O THROTTLE QUADRANT (711A1)	PILOT'S LEFT SIDE CONSOLE STA 225	LIMIT SWITCH	$>10^{\circ}$ = SWITCHED GND $<10^{\circ}$ = OPEN	DOWN AND LOCKED GND P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	N/A	01P37	IWSFD FIG. 30 ZONE 18B	299	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 30 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
278	DC-1 POLE	V=28VDC I=5A	LOCK SOLINOID P/O LANDING GEAR HANDLE (785A1)				CB5 (5A) MLG HANDLE RLY NO. 1 (36A2) P/O K32 MLG SAFETY B (R. GLOVE RELAY BOX 772A1)	03Q21	GDL 278	IWSFD FIG. 30 ZONE 4C, 3C 4A, 3A, 1A	278
279	DC-1 POLE	V=28VDC	EXTEND SOLINOID P/O NLG TRANSFER VALVE (74L1)				CB44 (5A) MLG STRUT LCH BAR ADVSY (36A2) P/O AC EXTERNAL PWR CONTACTOR (66A6K3) P/O K88-NOSE KNEEL RELAY P/O K1-MLG HANDLE C RELAY P/O K2-MLG SAFETY C RELAY (L. GLOVE RELAY BOX 773A1)	04Q41	GAL 279	IWSFD FIG. 30 ZONE 6B, 5B, 1B	279
280	DC-1 POLE	V=28VDC	KNEEL SOLINOID P/O NLG TRANSFER VALVE (74L1)				CB44 (4A) NLG STRUT LCH BAR ADVSY (36A2) P/O K88-NOSE KNEEL RELAY P/O K1-MLG HANDLE C RELAY P/O K4-MLG SAFETY C RELAY (L. GLOVE RELAY BOX 773A1)	04Q42	GAL 280	IWSFD FIG. 30 ZONE 1B, 6B, 7C	280
281	DC-1 POLE	V=28VDC	SEQUENCING SOLINOID P/O NLG SEQUENCING CONTROL VALVE (74L2)				CB44 (5A) NLG STRUT LCH BAR ADVSY (36A2) P/O K93 - LAUNCH BAR NOT STOWED P/O K59 - LAUNCH BAR CAUTION P/O K4 MLG SAFETY L (L. GLOVE RELAY BOX 773A1)	04Q43	GAS 281	IWSFD FIG. 30 ZONE 8C, 7C 7B	281
282	DC-1 POLE	V=28VDC	SELECTOR SOLINOID P/O LAUNCH BAR ABORT SELECTOR VALVE (74L3)				CB44 (5A) NLG STRUT LCH BAR ADVSY (36A2)	04Q44	GAL 282	IWSFD FIG. 30 ZONE 6C, 5C 1B	282

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 30 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
283	DC-1 POLE	V=28VDC	HOOK SOLINOID P/O ARRESTING HOOK CONTROL VALVE (49L1)				CB31 (5A) RAIN RPL/ ANTI-ICE CONTR/HK CONTR (36A2) P/O K23 HOOK/AUX FLAP ISOLATION (L. GLOVE RELAY BOX 773A1)	04Q45	GGL 283	IWSFD FIG. 30 ZONE 1B, 11A, 12B	283
284	DC-1 POLE	V=28VDC	UPLOCK SOLINOID P/O ARRESTING HOOK CONTROL VALVE (49L1)				CB31 (5A) RAIN RPL/ ANTI-ICE CONT/HK CONT (36A2) P/O K23-HOOK/AUX FLAP ISOLATION	04Q46	GGL 284	IWSFD FIG. 30 ZONE 1B, 11A, 12A	284
285	DC-1 POLE	V=28VDC	SKID CONTROL BOX (82A1)				CB15 (5A) ANTI SKID-R AICS LK UP PWR (36A2) P/O K6-MLG HANDLE D	04Q48	GKL 285	IWSFD FIG. 30 ZONE 14B, 13B 1B	285
286	DC-1 POLE	V=28VDC	NOSE WHEEL STEERING MONITOR (59A1) (28VDC)				CB8 (3A) NOSE WHEEL STEERING AFCS (36A3) P/O K21 MLG SAFETY E P/O K27 NOSE WHEEL STEERING NO. 1 P/O K28 NOSE WHEEL STEERING NO. 2	04Q47	GHL 286	IWSFD FIG. 30 ZONE 1C, 5A 7A, 9A	286
287	DC-1 POLE	V=28VDC	SHUTOFF SOLINOID P/O NOSE WHEEL STEERING DAMPER UNIT (59L1)				CB8 (3A) NOSE WHEEL STEER AFCS (36A3) P/O K93-LAUNCH BAR NOT STOWED RELAY P/O K91-NOSE GEAR HYDRAULIC SHUT OFF VALVE RELAY P/O K21-MLG SAFETY E (L. GLOVE RELAY BOX 773A1) P/O K7-HOOK NOT STOWED RELAY (R. GLOVE RELAY BOX 772A1)	04Q49	GHL 287	IWSFD FIG. 30 ZONE 9A, 8A, 8B, 7A, 7B, 5A	287
288	ENABLE DRIVER	(OPEN/GND)	NLG DOWN AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6 (3A) WHEELS POS. IND (36A2)	02D46	GDL 288	IWSFD FIG. 30 ZONE 17A, 19A 1A	288

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 30 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
289	ENABLE DRIVER	V=28VDC	WHEEL-FLAPS POSITION INDICATOR - 28VDC PWR (78M1)	100%			CB6 (3A) WHEELS POS IND (36A2)	02D47	GLL 289	IWSFD FIG. 30 ZONE 17A, 1A	289
290	ENABLE DRIVER	OPEN/GND	MLG UP AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6(3A) WHEELS POS IND (36A2)	02D48	GJL 290	IWSFD FIG. 30 ZONE 19A, 17A 1A	290
291	ENABLE DRIVER	OPEN/GND	LEFT MLG DOWN AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6 (3A) WHEELS POS IND (36A2)	02D49	GDL 291	IWSFD FIG. 30 ZONE 20A, 17A 1A	291
292	ENABLE DRIVER	OPEN/GND	LEFT MLG UP AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6 (3A) WHEELS POS IND (36A2)	02D50	GJL 292	IWSFD FIG. 30 ZONE 20B, 17A 1A	292
293	ENABLE DRIVER	OPEN/GND	RIGHT MLG DOWN AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6 (3A) WHEELS POS. IND (36A2)	02D51	GDL 293	IWSFD FIG. 30 ZONE 20C, 17A 1A	293
294	ENABLE DRIVER	OPEN/GND	RIGHT MLG UP AND LOCKED FLAG P/O WHEELS-FLAPS POSITION INDICATOR (78M1)				CB6 (3A) WHEELS POS. IND (36A2)	02D52	GJL 294	IWSFD FIG. 30 ZONE 17A, 20B 1A	294
295	ENABLE DRIVER	OPEN/28VDC	AUX BRK/SKID CAUTION LAMP P/O PILOT CAUTION ADVISORY INDICATOR				CB19 (5A) HYD VALVE CONTR (36A2) P/O K84 - TRANSFER PUMP SHUTOFF (LEFT GLOVE RELAY BOX 773A1)	02D53	GLL 295	IWSFD FIG. 30 ZONE 1B, 7C 13A, 15A, 17C	295
296	RELAY DRIVER	GND/OPEN	SKID CONTROL BOX (82A1)				N/A	06D04	GDL 296	IWSFD FIG. 30 ZONE 15B, 16B	296

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 30 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
297	LAMP DRIVER	V-28VDC	HOOK TRANSIT INDICATOR LIGHT DS1 P/O HOOK/GUN PANEL (706A1)				N/A	02D54	GGL 297	IWSFD FIG. 30 ZONE 12B, 12A 17C	297
298	LAMP DRIVER	V=28VDC	DS1 TRANSIT INDICATOR LIGHT P/O LANDING GEAR HANDLE (785A1)				CB6 (3A) WHEELS POS IND (36A2)	02D55	GLL 298	IWSFD FIG. 30 ZONE 18B, 17B 18C, 19A, 20A 20C	298
299	ENABLE DRIVER	GND/OPEN	DOWN AND LOCKED GND INPUT P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				N/A	02D56	MJL 299	IWSFD FIG. 30 ZONE 17C, 18C 19A, 20A, 20C	299

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 30 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
278	GDL 278 = $\overline{\text{GDS 002}}$ + $\overline{\text{GDS 102}}$	002 102	278	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 4C, 3C, 4A, 3A, 1A	LANDING GEAR HANDLE LOCK SOLINOID ENERGIZED - (UNLOCKED) = LEFT OR RIGHT MLG - WEIGHT NOT ON WHEELS
279	GAL 279 = (GAS 191. XAS 180)• EPS 163 . GDS 052•($\overline{\text{GDS 002}}$ + $\overline{\text{GDS 102}}$)	002 052 102 163 180 191	279	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 6B, 5B, 1B 7C	NLG TRANSFER VALVE EXTEND SOLINOID ENERGIZED (28VDC) = NOSE STRUT - EXTD AND EXTERNAL AC PWR - NOT ON LINE OR (COMBINED SYS. PRESS-7450 PSI AND MLG HANDLE - DOWN AND LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT)
280	GAL 280 = EPS 163 •GDS 052 • GDS 002 •GDS 102 • GAS 192	002 052 102 163 192	280	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 1B, 6B 7C	NLG TRANSFER VALVE KNEEL SOLINOID ENERGIZED (28VDC) = COMBINED SYS. PRESS. - >450 PSI AND MLG HANDLE-DOWN AND LEFT AND RIGHT MLG WEIGHT ON WHEELS AND NOSE STRUT - KNEEL
281	GAL 281 = [GAS 193 • ($\overline{\text{GDS 002}}$ + $\overline{\text{GDS 102}}$)] [(QKS 194 + QKS 195)• EPS 163 • GDS 052 • GDS 002 • GDS 102 • GAS 192]	002 052 102 163 192 193 194 195	281	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 7B, 8B, 7C, 5B, 1B	NLG SEQUENCING CONTROL VALVE SOLINOID - ENERGIZED (NLG RETRACTION INHIBITED) = [LAUNCH BAR - EXTENDED AND (LEFT OR RIGHT MLG-WEIGHT ON WHEELS NOT)] OR [(LEFT OR RIGHT THROTTLE - <MIL PWR) AND COMBINED SYS. PRESS - > 450 PSI AND MLG HANDLE - DOWN AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND NOSE STRUT KNEEL]
282	GAL 282 = GAS 196	196	282	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 6C, 5C, 1B	LAUNCH BAR ABORT SELECTOR VALVE SOLINOID ENERGIZED LAUNCH BAR - ABORT
283	GGL 283 = DHS 032 • $\overline{\text{GGS 049}}$ • $\overline{\text{GGS 197}}$ •($\overline{\text{GDS 002}}$ + $\overline{\text{GDS 102}}$)	032 049 197 002 102	283	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 1B, 11A, 12A	ARRESTING HOOK CONTROL VALVE (HOOK SOLINOID) - ENERGIZED = FLT HYD PRESS - NORMAL AND HOOK CONTROL HANDLE - UP AND HOOK - NOT STOWED AND LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT
284	GGL 284 = DHS 032 • GGS 049 • ($\overline{\text{GDS 002}}$ + $\overline{\text{GDS 102}}$	032 049 002 102	284	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 1B, 11A 12A	ARRESTING HOOK CONTROL VALVE (UPLOCK SOLINOID) ENERGIZED = FLT HYD PRESS-NORMAL AND HOOK CONTROL HANDLE - DOWN AND LEFT OR RIGHT MLG WEIGHT ON WHEELS NOT

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 30 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
285	GKL 285 = GKS 198 • GDS 052	052 198	285	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 14B, 13B 1B	SKID CONTROL BOX - 28VDC = ANTI-SKID/SPOILER BRAKE - BOTH AND MLG HANDLE - DOWN
286	GHL 286 = GHS 199 • GDS 002 • GDS 102	002 102 199	286	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 1C, 5A, 7A, 9A	NOSEWHEEL STEERING MONITOR (28VDC) = AUTO PILOT ENGAGE NOSEWHEEL STEERING PUSHBUTTON SWITCH-ON AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS
287	GHL 287 = [GAS 193 • (GDS 002 + GDS 102)] + [(QKS 194 + QKS 195) • EPS 163 • GDS 052 • GAS 192] + [QKS 200 • QKS 201 • GDS 197 • GDS 002 • GDS 102] + [QKS 200 • QKS 201 • GDS 197 • GDS 002 • GDS 102] (t-1) • GHS 199 (t-1) • [QKS 201 + QKS 200 + GDS 197 + GDS 002 + GDS 102] (t)	002 052 102 163 192 193 194 195 197 199 200 201	287	2	a) ESS. NO. 2 BUS b) *REQUIRES LOCK UP (LATCHING FUNCTION)	IWSFD FIG. 30 ZONE 9A, 8A 8B, 7A, 7B, 7C, 6B, 5A, 5B, 1C	NOSE WHEEL STEERING DAMPER UNIT SHUT OFF SOLINOID ENERGIZED (OPEN) = [LAUNCH BAR-EXTENDED AND LEFT OR RIGHT - WEIGHT ON WHEELS NOT] OR [(LEFT OR RIGHT THROTTLE - < MIL PWR) AND COMBINED SYS. PRESS - > 450 PSI AND MLG HANDLE-DOWN AND NOSE STRUT-KNEEL] OR [LEFT AND RIGHT THROTTLE-IDLE AND HOOK-NOT STOWED AND LEFT AND RIGHT MLG-WEIGHT ON WHEELS] OR [LEFT AND RIGHT THROTTLE ARE OR WERE-IDLE AND HOOK IS OR WAS-NOT STOWED AND LEFT AND RIGHT MLG ARE OR WERE-WEIGHT ON WHEELS WHEN THE AUTO PILOT ENGAGE NOSEWHEEL STEERING PUSH BUTTON SWITCH WAS-OFF] NOTE: THIS SSPC TEE'S TO EXISTING CIRCUIT FROM NOSE WHEEL, STEERING MONITOR BOX (59A1) AND IS THERE OR'ED WITH THIS FUNCTION
288	GDL 288 = GDS 085	085	288	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 19A, 17A, 1A	NLG DOWN AND LOCKED FLAG - ENERGIZED = NLG - DOWN AND LOCKED
289	GLL 289	N/A	289	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 17A, 1A	WHEELS-FLAPS POSITION INDICATOR (28VDC PWR) = 28VDC ESS. NO. 2 BUS ENERGIZED
290	GJL 290 = GJS 202	202	290	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 19A, 17A, 1A	NLG UP AND LOCKED FLAG - ENERGIZED = NLG - UP AND LOCKED
291	GDL 291 = GDS 203	203	291	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 20A, 17A 1A	LEFT MLG DOWN AND LOCKED FLAG-ENERGIZED = LEFT MLG - DOWN AND LOCKED

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 30 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
292	GJL 292 = GJS 204 • GJS 205	204 205	292	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 20B, 17A 1A	LEFT MLG UP AND LOCKED FLAG - ENERGIZED = LEFT MLG DOOR-UP AND LOCKED AND LEFT MLG POSITION - UP AND LOCKED
293	GDL 293 = GDS 206	206	293	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 20C, 17A 1A	RIGHT MLG DOWN AND LOCKED FLAG - ENERGIZED = RIGHT MLG - DOWN AND LOCKED
294	GJL 294 = GJS 207 • GJS 208	207 208	294	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 17A, 20B 1A	RIGHT MLG UP AND LOCKED FLAG - ENERGIZED = RIGHT MLG DOOR - UP AND LOCKED AND RIGHT MLG POSITION - UP AND LOCKED
295	GLL 295 = GCS 211 + [EPS 163 + [(GGS 182 + GDS 002 + GDS 102 + XAS 180) • (DMS 032 + XAS 180 + DMS 031)] • (GCS 209 + GCS 210)]	002 031 032 102 163 180 182 209 210 211	295	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 17C, 15A, 13A, 7C, 1B	AUX BRK/SKID ADVISORY - ON = SKID CONTROL - PWR DOWN OR [COMB. SYS. PRESS - > 450 PSI OR [(TRANSFER PUMP-ON OR LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT OR EXTERNAL AC PWR - NOT ON LINE) AND (FLT. HYD. PRESSURE - NOT NORMAL OR EXT. AC. PWR - ON LINE OR COMBINED SYS. PRESSURE - NOT NORMAL)] AND (LEFT OR RIGHT BRAKE PRESS - < 400 PSI) OR SKID CONTROL - PWR LOSS
296	GDL 296 = GDS 002 • GDS 102	002 102	296	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 15B, 16B	SKID CONTROL BOX - WEIGHT OFF WHEELS INHIBIT = LEFT AND RIGHT MLG - WEIGHT ON WHEELS NOT
297	GGL 297 = MJS 212 + [GGS 049 • GGS 197] + [GGS 049 • GGS 051]	049 051 197 212	297	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 12A, 12B, 17C	HOOK TRANSIT INDICATOR LITE - ON = LIGHT TEST-ACTIVE OR (HOOK CONTROL HANDLE-UP AND HOOK-NOT STOWED) OR (HOOK CONTROL HANDLE-DOWN AND HOOK-NOT DOWN)
298	GGL 298 = MJS 212 + [GDS 052 • (GJS 202 + GJS 204 + GJS 205 + GJS 207 + GJS 208)] + [GDS 052 • (GDS 085 + GBS 213 + GBS 214 + GDS 203 + GDS 206 + GLL 289)]	052 085 202 203 204 205 206 207 208 212 213 214	298 (289)	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 18B, 17C, 19, 20,	DS1 TRANSIT INDICATOR LIGHT (P/O LANDING GEAR HANDLE) - ON = LIGHT TEST - ACTIVE OR [MLG HANDLE-UP AND (NLG DOOR - UNLOCKED OR LEFT MLG DOOR-UNLOCKED OR LEFT MLG POSITION - UNLOCKED OR RIGHT MLG DOOR - UNLOCKED OR RIGHT MLG POSITION-UNLOCKED)] OR [MLG HANDLE - DOWN AND (NLG - UNLOCKED OR LEFT OR RIGHT MLG - RETRACTED OR LEFT OR RIGHT MLG - UNLOCKED OR WHEELS - FLAPS POSITION INDICATOR - UNPOWERED)]

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 30 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
299	MJL 299 = CGS 215 • (KAS 140 + KAS 139) • (GDS 085 + GBS 213 + GBS 214 + GDS 203 + GDS 206 + GLL 289	085 139 140 203 206 213 214 215	299 (289)	2	ESS. NO. 2 BUS	IWSFD FIG. 30 ZONE 17C, 18C, 19A, 20A, 20C,	DOWN AND LOCKED - GND TO THE PILOT CAUTION ADVISORY INDICATOR = FLAP LEVER - > 10^{0} AND (RIGHT OR LEFT THROTTLE - < 40^{0}) AND (NLG DOWN - UNLOCKED OR LEFT OR RIGHT MLG - RETRACTED OR LEFT OR RIGHT MLG - UNLOCKED OR WHEELS - FLAPS POSITION INDICATOR - UNPOWERED)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 32 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
124	Air Source - Ram Selected	HNS124	Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Push Button P/O 5 Manual Operated, Mechanically Interlocked Self-Cancelling	Ram Selected = Switched 28VDC Ram Not Selected = Open	a) K25 Ram Air/Timer Relay Box 772A1) b) Shut Off Valve (Enable) c) Over Temp switches 42S1 and 42S52	Air Source - Ram Push Button Switch	02P28	IWSFD Fig. 32 Zone 9A	196 211 198 199	Solid State
125	Ram Air - INCR (Associated with Item 126)	HQS125	Ram Air S2 Switch P/O Air Condition Control Panel (42A1)	Pilots Right side console STA 225	Toggle switch (SPDTCO)	INCR = Switched 115VAC Off or DECR = Open	Emergency Ram Air Door Actuator (42L2) (Extend)	Ram Air Switch (S2)	02P29	IWSFD Fig. 32 Zone 32, 31, 1B	198 199	Solid State
126	Ram Air - DECR (Associated with Item 125)	HQS126	Ram Air Switch S2 P/O Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Toggle Switch (SPDTCO)	DECR = Switched 115VAC Off or INCR = Open	Emergency Ram Air Door Actuator (42L2) (Retract)	Ram Air Switch (S2)	02P30	IWSFD Fig. 32 Zone 32, 31, 1B	199	Solid State
127	GND CLG-OBC/ CABIN (Associated with Item 128)	HNS127	Test Panel (720A1)	NFO's Right Side Console STA300	Toggle Switch (DPDTCO)	OBC/Cabin = Switched 115VAC Off or AWG9/Aim 54 = Open	Ground Cooling Diverter Valve Actuator (42L12) (Retract)	GND CLG Switch (S3)	04P10	IWSFD Fig. 32 Zone 38B	212 200 202 270 736	Solid State
128	GND CLG-AWG9/ AIM54 (Associated with Item 127)	HNS128	Test Panel (720A1)	NFO's Right Side Console STA300	Toggle Switch (DPDTCO)	AWG9/Aim54 = Switched 115VAC Off or OBC/Cabin = Open	Ground Cooling Diverter Valve Actuator (42L12) (Extend)	GND CLG Switch (S3)	04P11	IWSFD Fig. 32 Zone 38B	212 201 203	Solid State
129	>30000 ± 2000 Feet	HCS129	Aneroid Altitude Switch - Aircraft Air Temperature Electronic Control (42A8)	Right Side STA360 WL130	>30000 Ft = Switched 28VDC <30000 Ft = Open	K11 - Electronic Cooling (Right Glove Relay Box 772A1)		N/A	07D20	IWSFD Fig. 32 Zone 33A 27A	205	Enternal Signal Adapter

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 32 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
136	<0.4 Mach Signal	FLS130	Air Data Computer (05A1)	Right Side STA400 WL170	Relay Driver Signal From Air Data Computer	<0.4 Mach Signal = GND <0.4 Mach Signal Not = Open or 28VDC	K13 - Low Mach Pressure No. 1 (Left Glove Relay Box 773A1)	N/A	07D21	IWSFD Fig. 32 Zone 11C	210	External Signal Adapter
137	Air Source - Off	HNS137	Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Push Button P/O 5 Manual Operated Mechanically Interlocked Self Cancelling Switches	Off = Switched 28VDC Off Not = Open	Left Bleed Air Shutoff Valve (42L11) Right Bleed Air Shutoff Valve (42L11) K29 Ram Air Timer Dual Pressure Regulator and Shutoff Valve (42L8) K14 Bleed Air Relay	Air Source-Off Push Button Switch	02P31	IWSFD Fig. 32 Zone 2B	213 214 212 196 198 199	Solid State
138	Air Source - L. Engine	HNS138	Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Push Button P/O 5 Manual Operated Mechanically Interlocked Self Cancelling Switches	L. Engine = Switched 28VDC L. Engine Not = Open	Right Bleed Air Shutoff Valve (42L11)	Air Source - L. Eng. Push Button Switch	02P32	IWSFD Fig. 32 Zone 2B	212	Solid State
139	Left Throttle Start Cross BL - <40°	KAS139	Throttle Quadrant (711A1)	Pilots Left Side Console STA225	Limit Switch	<40° = Switched 28VDC >40° = Open	Right Bleed Air Shutoff Valve (42L11)	N/A	05D21	IWSFD Fig. 32 Zone 2C	213 212 299	External Signal Adapter
140	Right Throttle Start Cross BL - <40°	KAS140	Throttle Quadrant (711A1)	Pilots Left Side Console STA225	Limit Switch	<40° = Switched 28VDC >40° = Open	Right Bleed Air Shutoff Valve (42L11)	N/A	05D22	IWSFD Fig. 32 Zone 2B	213 212 299	External Signal Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 32 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
141	Left Engine BL Air Valve Switch - Cut Off	KAS141	Throttle Quadrant (711A1)	Pilots Left Side Console STA 225	Limit Switch	Cut Off = Switched 28VDC >Cut Off = Open	Right Bleed Air Shutoff Valve (42L11)	N/A	05D23	IWSFD Fig. 32 Zone 2C	212	External Signal Adapter
142	Right Engine BL Air Valve Switch - Cut Off	KAS142	Throttle Quadrant (711A1)	Pilots Left Side Console STA225	Limit Switch	Cut Off = Switched 28VDC >Cut Off = Open	Right Bleed Air Shutoff Valve (42L11)	N/A	05D24	IWSFD Fig. 32 Zone 2B	212	External Signal Adapter
143	Air Source - Right Engine	HNS143	Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Push Button P/O 5 Manual Operated, Mechanically Interlocked Self Cancelling Switches	R. Eng. = Switched 28VDC R. Eng. Not = Open	Left Bleed Air Shutoff Valve (42L11)	Air Source - R. Eng. Push Button Switch	02P33	IWSFD Fig. 32 Zone 2A	213	Solid State
144	Bleed Duct Over - Pressure - High	HWS144	Bleed Duct Over Pressure Switch (42S4)	Fuselage STA420	Pressure Switch	High = Switched 28VDC Low = Open	K78 - Bleed Air Shutoff (R. Glove Relay Box 772A1)	Bleed Duct Over Pressure Switch (42S4)	05P16	IWSFD Fig. 32 Zone 4B	214	Solid State
145	Temp - Auto	HNS145	Air Condition Control Panel (42A1)	Pilot's Right Side Console STA225	Toggle Switch SPDT	Auto = Switched 28VDC Man = Switched 28VDC	Aircraft Air Temp. Electronic Control (42A8) K26 REFRIG 1 (R. Glove Relay Box 772A1)	Temp - Man/Auto Switch	02P34	IWSFD Fig. 32 Zone 9A	215 216	Solid State
146	Over Temperature - 550°F	HNS146	Over Temperature Switch (550°F) (42S2)	Fuselage STA402	Temp. Switch (Snap Action)	>550°F = Switched 28VDC <550°F = Open	Shutoff Valve P/O Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve Assembly	Over Temperature Switch (550°F) (42S2)	04P12	IWSFD Fig. 32 Zone 15B	211	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 32 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
147	Over Temperature - 475°F	HNS147	Over Temperature Switch (475°F) (42S1)	Fuselage STA363	Temp. Switch (Snap Action)	≥475°F = Switched 28VDC <475°F = Open	Shutoff Valve P/O Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve Assembly	Over Temperature Switch (475°F) (42S1)	04P13	IWSFD Fig. 32 Zone 15C	211	Solid State
148	<0.25 Mach Signal	FLS148	Air Data Computor (05A1)	Right Side STA400 WL170	Relay Driver Signal From Air Data Computer	<0.25 Mach = GND >0.25 Mach = Open or 28VDC	K15 - Low Mach Cooling No. 2 (Left Glove Relay Box 773A1)	N/A	07D22	IWSFD Fig. 32 Zone 11C	219	External Signal Adapter
149	Cabin Press - Dump	HPS149	Air Condition Control Panel (42A1)	Pilots Right Side Console STA225	Toggle Switch	Dump = Switched 28VDC Norm = Open	Cabin Pressure Safety Valve (42L1) Solenoid	Cabin Press. - Dump/ Normal Switch (S3)	02P35	IWSFD Fig. 32 Zone 17B	220	Solid State
150	Cabin - Low Pressure	HPS150	Cabin Low Pressure Switch (42S3)	Fuselage STA220	Pressure Switch	Low Pressure (<5 PSI) = Switched 28VDC Low Pressure Not = Open	"Cabin Press" Light - P/O NFO Caution Advisory Indicator (69A2A1)	Cabin Low Pressure Switch (42S3)	02P36	IWSFD Fig. 32 Zone 19B	221	Solid State
151	Left Engine Oil - Hot (>250°/260°F)	EMS151	Left Engine Oil Temperature Switch (70A4)	Left Engine	Left Engine Oil Temperature Switch (70A4)	Hot (>250°/260°F) (Closed) = Switched 28VDC Not Hot (<250°F) (Open) = "Open"	"L. Oil Hot" Light - P/O Pilot Caution Advisory Indicator (66A1)		06P26	IWSFD Fig. 32 Zone 1A NAVAIR 01-F14AAA-2-2-6 Section 006-00 Page 11/12	217	Solid State

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 32 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
152	Caution Lamp Drive-On	HNS152	Bleed Air Leak Detector Control Unit (70A8)	Left Side Fuselage STA350	Relay Contacts	Caution Lamp Drive On = Switched 28VDC Off = Open	a) Pilot Caution Advisory Indicator (69A1) "Bleed Duct" Lamp b) Sys. Test and PWR Panel (79OA1) "Go" Lamp	N/A	03P10	IWSFD Fig. 32 Zone 8A	223	Resistor Divider Adapter
153	Bleed Air - Selected	HQS153	System Test-System PWR Panel (79OA1)	NFO Left Knee Panel STA300	P/O 9 Position Rotary Switch	Bleed Air = Switched 28VDC Off = Open	Bleed Air Detector Control Unit (70A8) (K2 Relay)	9 Position Rotary Switch (S2)	03P11	IWSFD Fig. 32 Zone 7A, 8A	222	Solid State

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
195	AC - 1 Pole	V = 115VAC ØC I = 3A	Bleed Air Leak Detector Control Unit (70A8) Power Supply	100%			CB28 (3A) Bleed Duct AC (35A4)	01Q58	HNL195	IWSFD Fig. 32 Zone 1A, 8B	195
196	AC - 1 Pole	V = 115VAC ØC	Elapsed Time Indicator (Part of Bootstrap Turbine Compressor) (42M1)				CB11 (5A) Temp CONTR AC (35A4) P/O K28-Elapsed Time Indicator Shutoff Relay P/O K25-Ram Air/Timer Relay (Right Glove Relay Box 772A1) CB26 (5A) ECS Temp CONTR (36A2) CB89 (5A) Air Source CONTR (36A3)	04Q50	DTL196	IWSFD Fig. 32 Zone 10A, 10B, 9A, 9C, 2A	196
197	AC - 1 Pole	V = 115VAC ØC	Aircraft Air Temperature Electronic Control (42A8) (P/O Cabin Air Conditioning Subsystem)	100%			CB11 (5A) Temp CONTR AC (35A4) (See Item 196)	04Q51	HNL197	IWSFD Fig. 32 Zone 1A, 21A	197
198	AC - 1 Pole	V = 115VAC ØC	Emergency Ram Air Door Actuator (42L2) (Extend Leg)				CB11 (5A) Temp CONTR AC (35A4) (Same as Item 196) CB89 (5A Air Source CONTR (36A3) (Same as Item 196) P/O K25 Ram Air Timer P/O K28 Elapse Time IND Shutoff (Right Glove Relay Box 772A1)	05Q40	HQL199	IWSFD Fig. 32 Zone 1A, 31, 32, 1B	199
199	AC - 1 Pole	V = 115VAC ØC	Emergency Ram Air Door Actuator (42L2) (Retract Leg)				Same as Item 198	05Q41	HQL199	IWSFD Fig. 32 Zone 1A, 31, 32, 1B	199

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
200	AC - 1 Pole	V = 115VAC ϕC	Ground Cooling Diverter Valve Actuator (42L12) (Retract)				CB11 (5A) Temp CONTR AC (35A4) (Same as Item 196)	04Q52	HNL200	IWSFD Fig. 32 Zone 38C, 37B 1A	200
201	AC - 1 Pole	V = 115VAC ϕC	Ground Cooling Diverter Valve Actuator (42L12) (Extend)				Same as Item 200	04Q53	HNL201	IWSFD Fig. 32 Zone 38C, 37B 1A	201
202	AC - 1 Pole	V = 115VAC ϕC	Ground Cooling Diverter Door Actuator (42L12) (Retract)				CB11 (5A) Temp CONTR AC (35A4) (Same as Item 196)	04Q54	HNL202	IWSFD Fig. 32 Zone 46C, 43A, 1A	202
203	AC - 1 Pole	V = 115VAC ϕC	Ground Cooling Diverter Door Actuator (42L12) (Extend)				CB11 (5A) Temp CONTR AC (35A4) (Same as Item 196)	04Q55	HNL203	IWSFD Fig. 32 Zone 46C, 43A, 1A	203
204	DC - 1 Pole	V = 28VDC I = 5A	Cooling Effect Controller (44A1)	100%			CB10 (5A) Elec Cooling (36A4)	04Q56	HNL204	IWSFD Fig. 32 Zone 34A, 1C	204
205	DC - 1 Pole	V = 28VDC	Equipment Hot Air Modulation Valve (44A5) Solenoid				K11 - Electronic Cooling (Right Glove Relay Box 772A11) CB10 (5A) Elec Cooling (36A4) (Same as Item 204)	04Q57	HNL205	IWSFD Fig. 32 Zone 1C, 33A, 33C	205
206	DC - 1 Pole	V = 28VDC I = 3A	Low Flow Solenoid Valve (27A45) P/O Cabin Air-Cond Subsystem				CB14 (3A) ANT Lock EXCIT (36A4) P/O K30 MLG Safety P (Right Glove Relay Box 772A1)		HNL206	IWSFD Fig. 32 Zone 1C, 37B, 38B, 39A	206

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
210	DC - 1 Pole	V = 28VDC	Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve (42L10) Shutoff Valve Reset (28VDC)				CB42 (5A) Cabin Press (36A2) P/O K13 Low Mach Pressure No. 1 P/O K12 Low Mach Pressure No. 2 P/O K2 MLG Safety C (Left Glove Relay Box 773A1) CB26 (5A) ECS Temp CONTR (36A2) Same as Item 196	05Q42	HPL210	IWSFD Fig. 32 Zone 1B, 11B, 11C, 14A	210
211	DC - 1 Pole	V = 28VDC	Shutoff Valve Enable (28VDC) Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve (42L10)				P/O K3 - Miscellaneous Start a Relay (R. Glove Relay Box 772A1) CB89 - Air Source CONTR (36A3) (Same as Item 196) P/O K2 MLG Safety F (R. Glove Relay Box 772A1)	05Q43	HPL211	IWSFD Fig. 32 Zone 14A, 10A 9A, 1B IWSFD Fig. 40 Zone 5A	211
212	DC - 1 Pole	V =28VDC	Right Bleed Air Shutoff Valve (42L11)				P/O K16 Misc Start B Relay P/O K9 R. Eng. Start B P/O K10 MLG Safety G (R. Glove Relay Box 772A1) CB23 (5A) Eng. Oil Cool (36A2)	10Q06	HQL212	IWSFD Fig. 32 Zone 6A, 3B 2, 1	212
213	DC - 1 Pole	V = 28VDC	Left Bleed Air Shutoff Valve (42L11)				P/O K7 L. Eng. Start B (L. Glove Relay Box 773A1) P/O K16 Misc Start B (R. Glove Relay Box 772A1)	09Q07	HQL213	IWSFD FIG. 32 ZONE 6C, 4C 3A 2,	213

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
214	DC - 1 Pole	V = 28VDC	Dual Pressure Regulator and Shutoff Valve (42L8)				P/O K3 Misc Start A P/O K2 MLG Safety F K78 Bleed Air Shutoff (R. Glove Relay Box 772A1)	11Q21	HQL214	IWSFD Fig. 32 Zone 5, 3, 2B	214
215	DC - 1 Pole	V = 28VDC	Aircraft Air Temperature Electronic Control (42A8)				CB26 (5A) ECS Temp. CONTR (36A) (Same as Item 196)	06D05	HNL215	IWSFD Fig. 32 Zone 11C, 9A, 1B	215
216	DC - 1 Pole (Could Be Enable Driver)	V = 28VDC	a) Aircraft Air Temperature Electronic Control (42A8) b) Air Condition Control Panel (42A1) Power Supply				CB26 (5A) ECS Temp CONTR (36A2) (Same as Item 196)	04Q58 07Q20	HNL216	IWSFD Fig. 32 Zone 11C, 9A, 1B Zone 25	216
217	Lamp Driver (Low PWR)	V = 28VDC	Pilots Caution Advisory Indicator "L Oil Hot" Light				CB89(5A) Bleed Air L oil hot (36A2)	01D02	HNL217	IWSFD Fig. 32 Zone 1A NAVAIR 01-F-14AAA-2-2-6 Section 00600 Page 11/12	217
218	DC - 1 Pole	V = 28VDC	a) Cabin Hot Air Modulating Valve (42L3) b) Cabin Air Flow Control Servo Valve (42A6) a) Position Switch b) TORQUE Motor PWR (28VDC) P/O Turbine Discharge Hot Air Valve (42L4)				P/O K26 RETRIG. 1 Relay CB26(5A) ECS Temp Contr (Same as item 196)	04Q59	HNL218	IWSFD FIG. 32 ZONE 15A, 10A 9A, 1B, 23B 21C, 20C, 30 29, 26, 25	218

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
218 (Continued)			a) Position Switch b) TORQUE Motor PWR (28VDC) P/O Suit Hot Air Modulating Valve (42L5)								
219	DC - 1 Pole	V = 28VDC	a) Shutoff Valve Solenoid P/O Primary Heat Exchanger Fan Modulating and Shutoff Valve (42L7) b) Shutoff Valve Solenoid P/O Secondary Heat Exchanger Turbofan Shutoff Valve (42L6)				CB26 (5A) ECS Temp Contr (36A2) (Same as Item 196) P/O K16 - Low Mach Cooling No. 1 P/O K15 - Low Mach Cooling No. 2 P/O K4 - MLG Safety L (L. Glove Relay Box 773A1)	07Q31 03Q42	HNL219	IWSFD Fig. 32 Zone 13, 11C, 1B	219
220	DC - 1 Pole	V = 28VDC	Cabin Pressure Safety Valve (42L1) Solenoid				CB42 (5A) Cabin Press (36A3) (Same as Item 210)	01Q19	HPL220	IWSFD Fig. 32 Zone 18B, 17B 1B	220
221	Lamp Driver (Low PWR)	V = 28VDC	NPO Caution Advisory Indicator (69A2A1) "Cabin Press" Light				Same as Item 220	01D01	HPL221	IWSFD Fig. 32 Zone 19B, 17C 1B	221
222	Relay Driver	V = 28VDC	Bleed Air Leak Detector Control Unit (70A8)				CB32 GND Test/Mach LVR Bit (36A4) K19 MLG Safety A RGSA (772A1) S1 - Door Open S4 - Test (790A1) P/O S2	04D36	HNL222	IWSFD Fig. 32 Zone 8B	222

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 32 SHEET 6

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
223	Lamp Driver (Low PWR)	V = 28VDC	a) "Bleed Duct" Lamp P/O Pilot Caution Advisory Indicator (69A1) b) "Go" Lamp P/O System Test and System Power Panel (790A1)				C89 (5A Bleed Air L. Oil Hot (36A1) (Same as Item 217)	01D03	HNL223	IWSFD Fig. 32 Zone 7,8	223

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 32 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
195	HNL195	N/A	195	2	Ess. No. 2 Bus ZONE 1A, 8B	IWSFD Fig. 32	115VAC ØC to the Bleed Air Leak Detector Control Unit (70A8) Power Supply = 115VAC ØC Ess. No. 2 Bus Energized
196	DTL196 = XAS003 + XAS004 • $\overline{HNS124}$ + HNS137	003 004 124 137	196	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 10A, 10B, 9A, 9C, 1A	115VAC ØC to the Elapsed Time Indicator = Right or Left Main AC Power on Line and Ram-Air Source Not Selected or Air Source-Off-Not Selected
197	HNL197	N/A	197	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 1A, 21A	115VAC ØC to the Aircraft Air Temperature Electronic Control = 115VAC ØC No. 2 Bus Energized
198	HQL198 = HQS125 • HNS124 + HNS137	124 125 137	198	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 1A, 1B, 31 32	Emergency Ram Air Door Actuator 115VAC ØC-Extend = Ram Air Switch in the-INCR-Position and Air Source Ram or Off Selected
199	HQL199 = $\overline{HNS124}$ • $\overline{HNS137}$ + HQS126 • (HNS124 + HNS137)	124 125 126 137	199	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 1A, 1B, 31 32	Emergency Ram Air Door Actuator 115VAC ØC-Retract = Ram Air Source Not Selected and Air Source Off Not Selected or DECR Position Selected and Air Source RAM or Off Selected
200	HNL200 = HNS127	127	200	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 38C, 37B 1A	Ground Cooling Diverter Valve Actuator 115VAC ØC-Retract = GND Cooling Switch in OBC/Cabin Position
201	HNL201 = HNS128	128	201	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 38C, 37B 1A	Ground Cooling Diverter Value Actuator 115VAC ØC-Extend = GND Cooling Switch in AWG-9/Aim-54 Position
202	HNL202 = HNS127	127	202	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 46C, 43A 1A	Ground Cooling Diverter Door Actuator 115VAC ØC-Retract = GND Cooling Switch in OBC/Cabin Position
203	HNL203 = HNS128	128	203	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 46C, 43A 1A	Ground Cooling Diverter Door Actuator 115VAC ØC-Extend = GND Cooling Switch in AWG-9/Aim-54 Position
204	HNL204	N/A	204	2	Left Main Bus	IWSFD Fig. 32 Zone 34A, 1C	Cooling Effect Controller 28VDC = 28VDC Left Main Bus Energized
205	HNL205 = HCS129	129	205	2	Left Main Bus	IWSFD Fig. 32 Zone 1C, 33A, 33C	Equipment Hot Air Modulating Valve Solenoid Energized (28VDC) = Altitude > 30000 ± 2000 Ft.

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 11 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
206	HNL206 = GDS002 • GDS102 • (HNS127 + HNS128)	002 102 127 128	206	3	L. Main Bus	IWSFD Fig. 32 Zone 1C, 37B, 38B, 39A	Low-Flow Solenoid Valve Energized (28VDC) = Left and Right MLG Weight-On-Wheels and GND CLG Switch on OBC/Cabin or AWG-9/Aim-54
210	HPL210 = $\overline{\text{FLS130}}$ • $\overline{\text{GDS002}}$ + GDS102	002 102 130	210	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 1B, 11B, 11C, 14A	Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve - Shutoff Valve Solenoid Reset (28VDC) = <0.4 Mach Signal Not (Low Mach Pressure Not) and Left or Right MLG Weight on Wheels Not
211	HPL211 = HNS124 • [($\overline{\text{KKS131}}$ + $\overline{\text{KKS133}}$ + $\overline{\text{KKS135}}$) • ($\overline{\text{KKS132}}$ + $\overline{\text{KKS134}}$ + $\overline{\text{KKS136}}$)] + ($\overline{\text{GDS002}}$ + $\overline{\text{GDS102}}$) • (KKS131 • KKS133 • KKS135) + (KKS132 • KKS134 • KKS136) + (HNS146 + HNS147)	002 102 124 131 132 133 134 135 136 146 147	211	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 14A, 10A 9A, 1B IWSFD Fig. 40 Zone 5A	Bleed Air Flow Modulating Pressure Regulating and Shutoff Valve - Shutoff Valve Solenoid Enable (28VDC) = Air Source-Ram-Selected and Left Engine Crank Not Selected or L. Engine auto restart switch open or L. Engine cutoff switch-open and right engine crank not selected or R. engine auto restart switch open or R. Engine cutoff switch open or Left or Right MLG Weight on Wheel Not and L. Engine Engine-Crank and L. Engine Auto Restart Switch-Closed and L. Engine Cutoff Switch-Closed or Right Engine-Crank and R. Engine Auto Restart Switch-Closed and R. Engine Cutoff Switch-Closed or Overtemperature Switch 550°F Closed or Overtemperature Switch 475°F Closed
212	HQL212 = KKS132 • KKS136 + (HNS138 + HNS137) • [$\overline{\text{KKS131}}$ + $\overline{\text{KKS133}}$ + $\overline{\text{KKS135}}$ • $\overline{\text{KKS132}}$ + $\overline{\text{KKS134}}$ + $\overline{\text{KKS136}}$] + GDS002 • GDS102 • KAS140 • KAS139 •[KKS131 • KKS133 • KKS135 • KKS132 • KKS134 • KKS136] + KAS141 • KAS142 • GDS002 • GDS102	002 102 131 132 133 134 135 136 137 138 139 140 141 142	212	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 6A, 3, 2	Right Bleed Shutoff Valve Energized - Closed = Right Engine-Crank and Right Engine Cutoff Switch Closed or (Air Source - L. Engin or Off) and [Left Engine-Crank Not or Auto Restart Switch Closed or Cutoff Switch-Closed and Right Engine-Crank Not or Auto Restart Switch-Closed or Cutoff Switch-Closed] or Left and Right MLG Weight On Wheels and R. Throttle Start Cross BL - <40° and R. Throttle Start Cross BL - <40° and [Left Engine-Crank and Auto Restart Switch-closed and Cutoff Switch-Closed or Right Engine-Crank and Auto Restart Switch-Closed and Cutoff Switch-Closed] or

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 32 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
212 (Continued)							Left and Right Engine BL Air Valve Switch-Cutoff and Left and Right MLG Weight On Wheels
213	HQL213 = KKS131 • KKS135 + (HNS143 + HNS137) • [$\overline{KKS131}$ + $\overline{KKS133}$ + $\overline{KKS135}$ • $\overline{KKS132}$ + $\overline{KKS134}$ + $\overline{KKS136}$] + GDS002 • GDS102 • KAS139 • KAS140 • [KKS131 • KKS133 • KKS135 + KKS132 • KKS134 • KKS136] + KAS141 • KAS142 • GDS002 • GDS102	002 102 131 132 133 134 135 136 137 139 140 143 141 142	213	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 6C, 3, 2	Left Bleed Air Shutoff Valve Energized (Closed) = Left Engine-Crank and Cutoff Switch-Closed or Air Source-R. Eng. or Off and [Left Engine-Crank Not or Auto Restart Switch-Open or Cutoff Switch-Open and Right Engine-Crank Not or Auto Restart Switch-Open or Cutoff Switch-Open] or Left and Right MLG Weight on Wheels and Left and Right Throttle Start Cross BL Switch's <40° and [Left Engine-Crank and Auto Restart Switch Closed and Cutoff Switch Closed or RightEngine-Crank and Auto Restart Switch Closed and Cutoff Switch Closed] or Left and Right Engine BL Air Valve Switch-Cutoff and Left and Right MLG Weight on Wheels
214	HQL214 = HNS137 • [$\overline{KKS131}$ + $\overline{KKS133}$ + $\overline{KKS135}$ • $\overline{KKS132}$ + KKS134 + KKS136] + ($\overline{GDS002}$ + $\overline{GDS102}$) • [KKS131 • KKS133 • KKS135 + KKS132 • KKS134 • KKS136] + HQS144*	002 102 131 132 133 134 135 136 137 144	214	2	a) Ess. No. 2 Bus b) Requires Latch-Up, Once Bleed Duct Over Pressure Switch is in the High Position the Dual Pressure Regulator Shutoff Valve Remains Closed Until Power is Removed	IWSFD Fig. 32 Zone 5, 3	Dual Pressure Regulator Shutoff Valve PWR (Closed) = Air Source - Off and [Left Engine-Crank Not or Auto Restart Switch-Open or Cutoff Switch-Open and Right Engine-Crank Not or Auto Restart Switch-Open or Cutoff Switch-Open] or (Left or Right MLG Weight on Wheels Not) and [Left Engine-Crank and Auto Restart Switch-Closed and Cutoff Switch-Closed or Right Engine-Crank and Auto Restart Switch-Closed and Cutoff Switch-Closed] or Bleed Duct Overpressure Switch-High*
215	HNL215 = HNS145	145	215	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 11C, 9A, 1B	28VDC Control PWR to the Aircraft Air Temperature Electronic Control = Temp. Switch-Auto

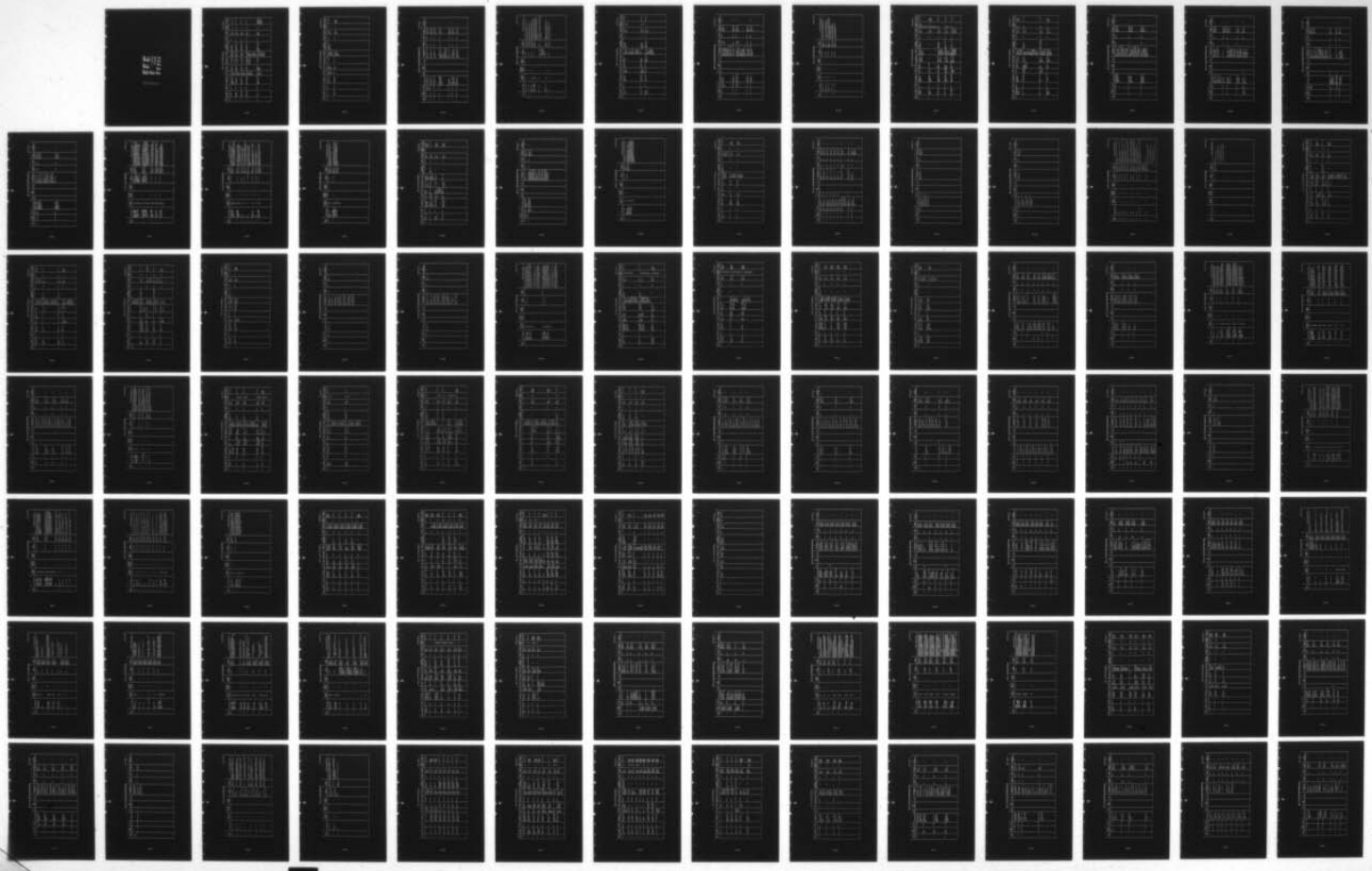
TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

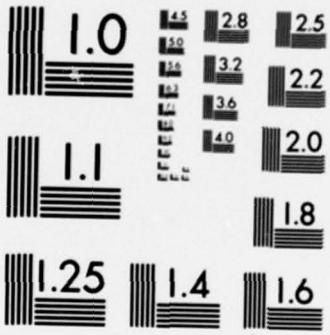
FIGURE 32 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
216	HNL216 = $\overline{\text{HNS145}}$	145	215	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 11C, 9A, 1B Zone 25	28VDC Control PWR to the Aircraft Air Temperature Electronic Control and Air Condition Control Panel Power Supply = Temp Switch - Man
218	HNL218	NA	218	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 15A, 10A 9B, 1B, 23B, 21C, 20C, 30, 29, 26, 25	28VDC to the Turbine Discharge Hot Air Valve a) Torque Motor and b) Position Switch and the Suit Hot Air Modulating Valve a) Torque Motor and b) Position Switch and the Cabin Hot Air Modulating Valve and the Cabin Air Flow Control Servo Valve
219	HNL219 = FLS148 + GDS002 • GDS102	002 102 148	219	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 13, 11C, 1B	28VDC to the a) Primary Heat Exchanger Fan Modulating and Shutoff Valve - Shutoff Valve Solenoid (Close) b) Secondary Heat Exchanger Turbofan Shutoff Valve (Close) = <0.25 Mach Signal or Left and Right MLG Weight on Wheels
220	HPL220 = HPS149	149	220	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 18B, 17B, 1B	Cabin Pressure Safety Valve - Energized (28VDC) (Dump) = Air Condition Cabin Press Switch-Dump
221	HPL221 = HPS150	150	221	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 19B, 17C 1B	"Cabin Press" Caution Light On = Cabin-Low Pressure
217	EML217 = EMS151	151	217	2	Ess. No. 2 Bus	IWSFD Fig. 32 Zone 1A NAVAIR 01-F14-AAA-2-2-6 Section 00600 Page 11/12	Pilot's Caution Advisory Indicator Panel "L Oil Hot" Illuminated = Left Engine Oil Temperature Switch Closed (Hot, >250°F)
222	HNL222 = WAS054 • MJS056 • HQS153	054 056 153	222	3	L. Main Bus	IWSFD Fig. 32 Zone 8, 9	Bleed Air Leak Detector Control Unit K2 Relay Energized = Door-Open and Test Button Depressed and Bleed Air Selected
223	HNL223 = HNS152	152	223	3		IWSFD Fig. 32 Zone 8, 9	"Go" and "Bleed Duct" Lamp illuminated = Caution Lamp Drive

AD-A047 860 ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES) DEFINITION AND PROTOTYPE DESIG..(U) GRUMMAN AEROSPACE CORP BETHPAGE N Y G COTTER ET AL. JUL 76 3/4

UNCLASSIFIED NADC-76194-30-VOL-2 N62269-75-C-0392 F/G 9/3 NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 33 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
094	Gyros/WSHLD Htr - ON	HJS094	System test and system power panel (790A1)	NFO's left knee panel FS300	Toggle Switch SPDT	ON = Switched 115 VAC @C OFF = Open	Windshield power control (40A1)	Gyros/Wshld HT - ON/OFF Switch	03P12	IWSPD Fig. 33 Zone 4B	168	Solid state
095	Windshield Defog-Max	HJS095	Windshield Defog Panel (40A3)	Pilot's right side console FS225	Toggle Switch DPTT	Max = Switched 28 VDC Min = Open	High Defog Solenoid (40L4)	Wshld Defog - Max/ Norm/Min Switch S1	02P37	IWSPD Fig. 33 Zone 6A	169 170	Solid state
096	Windshield Defog - Norm	HJS096	Windshield Defog Panel (40A3)	Pilot's Right Side Console FS225	Toggle Switch DPTT	Norm - Switched 28 VDC Min - Open	Medium defog solenoid (40L3)	Wshld Defog - Max/ Norm/Min Switch S1	02P38	IWSPD Fig. 33 Zone 6A	170	Solid state
097	Wshld Overheat sensor-hot	HAS097	Windshield Overheat Sensor (40S1)	Pilot's wshld leading edge anti-ice nozzle FS205 WL170	Temperature Sensor	Hot (300° ± 10° F) = closed (switched 28VDC Cold (260° ± 10°F) = Open	a) K3 Wshld hot relay (forward switching assembly 781A2) b) Pilot caution advisory indicator (69A1)	Windshield overheat sensor (40S1)	01P38	IWSPD Fig. 33 Zone 5A	171 173	Solid state
098	* Rain repel - ON	HJS098	External environment control panel (792A1)	Pilot's Right side console FS225	Momentary/ Toggle Switch (dpdt)	ON = switched 28 VDC	a) Rain repellent timer (40M1) b) Windshield anti-ice pressure regulator and shutoff valve	Windshield - Rain Repel/air/off Switch (S1)	02P39	IWSPD Fig. 33 ZONE 4A	171 172	Solid state *Momentary - Requires logic holding to insure Sostel sampling

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 33 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
099	Air - ON	HJS099	External environment control panel (79A1)	Pilot's Right Side Console FS225	Momentary/ Toggle Switch (DPDT)	ON = switched 28 VDC	Windshield anti-ice pressure regulator and shutoff valve	Windshield - Rain Repel/air/off switch (S1)	02P40	IWSFD Fig. 33 Zone 4A	171	Solid state
100	Alarm Light Output - ON	LTS100	Windshield Power Control (40A1)	FS210	Discrete Signal	28 VDC of open	Pilots - Wshld Hot - Caution Advisory indicator (69A1)	-	05D25	IWSFD Fig. 33 Zone 5C	173	External Signal Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 33 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
168	AC-1 Pole	V=115 VAC ϕA I=7.5A	Windshield Power Control (40A1)				CB1(7.5A) Wshld Defog pwr (35A1)	04Q13	HJL168	IWSPD Fig. 33 Zone 3B, 4B, 5C	168
169	DC-1 Pole	V = 28 VDC	High Defog Solenoid (40L4)				CB40(5A) Wshld Defog Contr (36A4)	04Q60	HJL169	IWSPD Fig. 33 Zone 8B, 6A 3A	169
170	DC-1 Pole	V = 28 VDC	Medium Defog Solenoid (40L3)				CB40(5A) Wshld Defog Contr (36A4)	04Q61	HJL170	IWSPD Fig. 33 Zone 8B, 6A 3A	170
171	DC-1 Pole	V = 28 VDC	Windshield anti-ice Pressure Regulator and Shutoff Valve (40L1)				Forward Switching Assembly K3 Windshield Hot Relay (78IA1) CB 31 (5A) Main Rpl/Anti-ice Contr/HX Contr (36A2) (Same as item 107, 108, 109)	04Q62	HAL171	IWSPD Fig. 33 Zone 7, 5B, 4A, 3A	171
172	DC-1 Pole	V = 28 VDC	Main Repellent Shutoff Valve (40L2)				Main Repellent Timer (40M2)	04Q14	HJL172	IWSPD Fig. 33 Zone 7B, 7A 4A, 3A	172
173	Lamp Driver	V = 28 VDC	Wshld Hot - Pilot Caution Advisory Indicator Panel (69A1)				K3 Relay-Forward Switching Assembly (78IA1) See Item 171	01D0A	LTL173	IWSPD Fig. 33 Zone 6B, 5B 5C	173
174	DC-1 Pole	V = 28 VDC	Windshield Power Control (40A1)				CB40(5A) Wshld Defog Contr (36A4) Same as Item 169	04Q15	HJL174	IWSPD Fig. 33 Zone 3A, 5C	174

TABLE III F-14 SUBTEL BOOLEAN EQUATIONS

FIGURE 33 SHEET 1

1 Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
168	HJL168 = HJS094	094	168	3	R. Main Bus	IWSPD Fig. 33 Zone 3B,4B,5C	115 VAC ϕA to the windshield power control = Gyros/Wahld Heater Switch - ON
169	HJL169 = HJS095	095	169	3	R. Main Bus	IWSPD Fig. 33 Zone 8B,6A,3A	High Defog Solenoid energized (28 VDC) = Windshield Defog Panel switch - MAX
170	HJL170 = HJS096 + HJS095	095 096	170	3	R. Main Bus	IWSPD Fig. 33 Zone 8B,6A,3A	Medium Defog Solenoid energized (28 VDC) = Windshield Defog Panel switch - MAX OR Normal
171	HAL171 = $\overline{\text{HAS097}}$ • (HJS099 + HJS098	097 098 099	171	2	Ess. No. 2 Bus	IWSPD Fig. 33 Zone 7B, 5B 4A, 3A	Windshield anti-ice pressure regulator and shutoff valve energized (windshield anti-ice air - on) = Windshield Overheat Sensor - Open AND external environment control panel switch in rain repel OR air position
172	HJL172 = HJS098	098	172	2	a) Ess. No. 2 Bus b) Requires 0.7 Sec Timer (on for 0.7 sec after momentary HJS098 is actuated)	IWSPD Fig. 33 Zone	Rain repellent Shutoff valve is energized (rain repellent spray on for 0.7 seconds) = rain repel momentary switch actuated
173	LTL173 = LTS100 + HAS097	097 100	173	3	R. Main Bus	IWSPD Fig. 33 Zone 6B, 5B 5C, 5A	Wahld hot - Caution Advisory Lite - ON = Windshield power control alarm light output - ON OR windshield overheat sensor - Closed
174	HJL174	NA	174	3	R. Main Bus	IWSPD Fig. 33 Zone 3A, 5C	28 VDC to the windshield power control = 28 VDC right main bus energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 34 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
101	LIQ COOLING AWG-9/ AIM-54 - ON	HNS 101	LIQUID COOLING CONTROL PANEL (61A1)	NFO'S LEFT SIDE CONSOLE FS 300	TOGGLE SWITCH (4 PDTCO)	SWITCHED VOLTAGES	a) WCS/MISSLE CONTHOLLER (61A2) b) K34-AWG-9 PUMP K35-AIM-54 PUMP (RIGHT GLOVE RELAY BOX 772A1) c) K51 AIM-54A HEATER PWR (LEFT GLOVE RELAY BOX 773A1)	LIQ COOLING - AWG-9/AIM-54 SWITCH	03P13	IWSFD FIG. 34 ZONE 2A	175 176 177 178	SOLID STATE
103	LIQ COOLING AWG-9 - ON	HNS 103	LIQUID COOLING CONTROL PANEL (61A1)	NFO'S LEFT SIDE CONSOLE FS 300	TOGGLE SWITCH (4PDTCO)	SWITCHED VOLTAGES	SAME AS ITEM 101	LIQ COOLING AWG-9/AIM-54 SWITCH	03P14	IWSFD FIG. 34 ZONE 2A	175 176 179	SOLID STATE
104	FAIRING INTERLOCK SWITCH-CLOSED	AGS 104	FAIRING INTERLOCK SWITCH (61S3)	LEFT SIDE FS 395	LIMIT SWITCH	SWITCHED CLOSED= 28VDC OPEN = OPEN	K35 AIM-54 PUMP (RIGHT GLOVE RELAY BOX 772A1) K51 AIM-54A HEATER POWER LEFT GLOVE RELAY BOX 77BA1)	FAIRING INTERLOCK SWITCH (61S3)	05P17	IWSFD FIG. 34 ZONE 3C	177	SOLID STATE

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 34 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
175	AC-3 POLE	115VAC ϕ A,B & C I = 15A COCH	WCS COOLENT PUMP (61B2)				CB26 (15A) AN/AWG-9 PUMP PH A (35A1) CB23 (15A) AN/AWG-9 PUMP PH B (35A1) CB20 (15A) AN/AWG-9 PUMP PH C (35A1) K34 AWG-9 PUMP RIGHT GLOVE RELAY BOX (772A1) CB42 (5A) LIQUID COOLING CONTR DC (36A4)	05Q44 05Q45 05Q46	HNL 175	IWSFD FIG.34 ZONE 2A, 1B 2B, 4B	175
176	AC-1 POLE	115VAC ϕC I=5A	WCS/MISSILE CONTROLLER (61A2)				CB11 (5A) LIQUID COOLING CONTR AC (35A1)	05Q47	HNL 176	IWSFD FIG.34 ZONE 1B, 2A 7B	176
177	AC-3 POLE	115VAC ϕ A,B & C I= 15A COCH	MISSILE COOLANT PUMP ASSEMBLY (61B1)				CB40 (15A) STA 3/6 AIM-7/ AIM-54 PUMP CB38 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH B (35A5) CB35 (15A) STA 3/6 AIM-7/AIM-54 PUMP PH C (35A5) K35 AIM-54 PUMP RIGHT GLOVE RELAY BOX (772A1)	07Q32 07Q33 07Q34	HNL 177	IWSFD FIG.34 ZONE 1C, 2C, 3C, 2A	177
178	DC-1 POLE	V=28VDC	WCS/MISSILE CONTROLLER (61A2)				CB42 (5A) LIQUID COOLING CONTR DC (36A4) (SAME AS ITEM 175	05Q48	HNL 178	IWSFD FIG.34 ZONE 1A, 2A 5B	
179	DC-1 POLE	V=28VDC	WCS/MISSILE CONTROLLER (61A2)				CB42 (5A) LIQUID COOLING CONTR DC (36A4) (SAME AS 175	05Q49	HNL 179	IWSFD FIG.34 ZONE 1A, 2A, 5C	179

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 34 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
175	HML 175 = HNS 101 • HNS 103	101 103	175	3	R. MAIN BUS	IWSFD FIG. 34 ZONE 1B, 2A, 2B, 4B	115 VAC φA, B & C TO THE WCB COOLANT PUMP = LIQ COOLING SWITCH AT (AMG-9/AIM-54 OR AMG-9)
176	HML 176 = HNS 101 • HNS 103	101 103	176	3	R. MAIN BUS	IWSFD FIG. 34 ZONE	115 VAC φC TO THE WCB/MISSILE CONTROLLER = LIQ COOLING SWITCH AT (AMG-9/AIM-54 OR AMG-9)
177	HML 177 = HNS 101 • AGS 104	101 104	177	3	R. MAIN BUS	IWSFD FIG. 34 ZONE 1C, 2A, 2C, 3C	115 VAC φA, B & C TO THE MISSILE COOLANT PUMP = LIQ COOLING SWITCH AT AMG-9/AIM-54 AND FAIRING INTERLOCK LIMIT SWITCH-CLOSED
178	HML 178 = HNS 101	101	178	3	R. MAIN BUS	IWSFD FIG. 34 ZONE 1A, 2A, 5B	28VDC TO THE WCS/MISSILE CONTROLLER = LIQ COOLING SWITCH AMG-9/AIM-54
179	HML 179 = HNS 103	103	179	3	R. MAIN BUS	IWSFD FIG. 34 ZONE 1A, 2A, 5C	28VDC TO THE WCS/MISSILE CONTROLLER = LIQ COOLING SWITCH AT AMG-9

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 35 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
163	COMBINED SYS. PRESSURE - > 450 P.S.I.	EPS 163	COMBINED SYS. PRESSURE MODULE (47A2)	LEFT SIDE FS 645	PRESSURE SWITCH	> 450 PSI = SWITCHED 28VDC < 450 PSI = SWITCHED 28VDC	K88 - NOSE KNEEL RELAY L. GLOVE RELAY BOX (773A1)	COMBINED SYS. PRESSURE SWITCH	06P27	IWSFD FIG. 35 ZONE 2A	237, 281 242, 287 244 295 262 263 277 243 500 279 280	SOLID STATE
180	EXTERNAL AC POWER - ON LINE	XAS 180	P/O AC EXTERNAL POWER CONTACTOR (66A6K3)	LEFT SIDE FS 410	AC CONTACTOR	N/A		N/A	05D26	IWSFD FIG. 35 ZONE 3B	262 735 263 265 266 267 268 270 279 295	EXTERNAL SIGNAL ADAPTER
181	FLT. SYS. PRESS->450PSI	EPS 181	P/O FLIGHT SYSTEM PRESSURE MODULE (47A1)	RIGHT SIDE FS 480	PRESSURE SWITCH	>450 PSI=SWITCHED 28VAC <450 PSI = SWITCHED 28VDC	K19 - HYDR ISOLATION 10 SEC TIME DEPAY RELAY (LEFT GLOVE RELAY BOX 773A1)	FLIGHT SYSTEM PRESSURE SWITCH	04P14	IWSFD FIG. 35 ZONE 2A	262 263	SOLID STATE
182	TRANSFER PUMP-ON	QGS 182	SYSTEM TEST AND SYSTEM POWER PANEL (790A1)	NFO'S LEFT KNEE PANEL FS 300	TOGGLE SWITCH (SPDT)	ON = SWITCHED 28 VDC OFF = SWITCHED 28 VDC	K84-TRANSFER PUMP SHUTOFF RELAY (L. GLOVE RELAY BOX 773A1)	TRANSFER PUMP ON/OFF SWITCH	03P15	IWSFD FIG. 35 ZONE 5B	262 263 265 295	SOLID STATE
183	HYD TRANSFER PUMP - NORMAL	QGS 183	HYDRAULIC TRANSFER PUMP PANEL (47A3)	PILOT'S RIGHT SIDE CONSOLE FS 225	TOGGLE SWITCH (DPDT)	NORMAL = SWITCHED 28VDC OFF = SWITCHED 28VDC	COMBINED TRANSFER PUMP SHUTOFF VALVE P/O COMBINED SYSTEM PRESSURE MODULE (47A2)	AUX HYD CONT- ON/OFF SWITCH	02P41	IWSFD FIG. 35 ZONE 19B, 23B, 8B, 7B, 5B, 4B 3B, 1A	262 263	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 35 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
184	BACKUP MODULE TEMP SWITCH - CLOSED (<180°F)	QGS184	FLIGHT CONTROL BACKUP MODULE (63B2)	FS710	TEMPERATURE SWITCH	HOT (<180°F) = OPEN COOL = CLOSED	AUX HYD CONT SWITCH-SOLENOID P/O SYS. TST AND SYS PUMP PANEL (790A1	N/A	06P28	IWSFD FIG. 35 ZONE 25B	266 267	RESISTOR DIVIDOR ADAPTOR
185	AUX HYD CONT ON	QGS185	SYS. TEST AND SYS. PWR PANEL (790A1)	NFO'S LEFT KNEE PANEL FS 300	SPRING LOADED SOLENOID/ MANUAL TOGGLE SWITCH	ON = SWITCHED 28VDC OFF = OPEN	a) BACK UP MODULE GROUND SOLENOID VALVE b) HIGH SPEED RELAY P/O FLT CONTROL BACKUP MODULE ELEC. MOTOR (63B2) c) K69-EMERG FLT HYDR IND RELAY (L.GLOVE RELAY BOX 773A1)	AUX HYD CONT-ON/OFF SWITCH	03P16	IWSFD FIG. 35 ZONE 5B	266 267	SOLID STATE
186	EMERG FLT HYD-HI	QGS186	MASTER TEST PANEL (734A1)	PILOT'S RIGHT SIDE CONSOLE FS 225	TOGGLE SWITCH	HI=SWITCHED 28VDC LOW=SWITCHED 28VDC	FLT CONTROL BACKUP MODULE (63B2) ELECTRIC MOTOR HI SPEED AND LOW SPEED RELAYS	EMERG GLT HYD-HIGH/ LOW/AUTO (LOW) SWITCH	02P42	IWSFD FIG. 35 ZONE 7C	267 268	SOLID STATE
187	BACKUP MODULE PRESSURE - CLOSED (>500 PSI)	QGS187	FLT. CONTROL BACKUP MODULE (63B2)	FS 710	PRESSURE SWITCH	CLOSED (>500PSI) = GND OPEN (<350PSI) = OPEN	EMER FLT HI AND LOW FLAGS P/O HYDRAULIC PRESSURE INDICATOR (37M1)	N/A	06P27	IWSFD FIG. 35 ZONE 26C, 28C	275 276	RESISTOR DIVIDOR ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 35 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
262	DC-1 POLE	V=28VDC	COMBINED TRANSFER PUMP SHUTOFF VALVE P/O COMBINED SYSTEM PRESSURE MODULE (47A2)				CB19(5A) HYD VALVE CONTR (36A2) CB40(715A) EMERG. FLT HYD AUTO (36A1) P/O K70 - HYD TRANSFER PUMP RELAY P/O K19 - HYDR ISOLATION 10 SEC TIME DELAY RELAY P/O K84 - TRANSFER PUMP SHUTOFF RELAY (L. GLOVE RELAY BOX 773A1) P/O AC EXTERNAL PWR CONTACTOR (66A6AK3)	03Q43	QSL262	IWSFD FIG.35 ZONE 23B, 19B 8B, 7B, 1A, 3A, 5B	262
263	DC-1 POLE	V=28VDC	FLT TRANSFER PUMP SHUT OFF VALVE P/O FLT SYSTEM PRESSURE MODULE (47A1)				CB19(5A) HYD VALVE CONTR (36A2) CB40(75A) EMER 6 FLT HYD AUTO (36A1) P/O K84-TRANSFER PUMP SHUTOFF RELAY P/O K19-HYDR ISOLATION 10 SEC TIME DELAY RELAY P/O K70 HYD TRANSFER PUMP RELAY (L.GLOVE RELAY BOX 773A1) P/O AC EXTERNAL PWR CONTACTOR (66A6AK3)	07Q35	QSL263	IWSFD FIG.35 ZONE 11B, 15B 8B, 7A, 1A, 3A, 2A, 5B, 4B, 3B, 2B	263
264	DC-1 POLE	V=28VDC	NORMAL ISOLATION SHUT OFF VALVE P/O COMBINED SYSTEM PRESSURE MODULE (47A2)				CB19(5A) HYD VALVE CONT (36A2) P/O K17-MLG SAFETY J P/O K18-MLG HANDLE A P/O K2-MLG SAFETY C P/O K70-HYD TRANSFER PUMP RELAY (L.GLOVE RELAY BOX 773A1)	03Q44	QSL264	IWSFD FIG.35 ZONE 24C, 20C 8A, 7A, 1A, 7B, 5B, 4B, 3B, 2B	264

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 35 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
265	DC-1 POLE	V=28VDC	a) FLIGHT SYSTEM PRESSURE MODULE (47A1) (FLT/GND TST SHUTOFF VALVE) b) COMBINED SYSTEM PRESSURE MODULE (47A2) (COMBINED GND TST SHUTOFF VALVE)				CB40(7.5A) EMERG FLT HYD AUTO (36A2) P/O K2 MLG SAFETY F (R. GLOVE RELAY BOX 772A1) P/O AC EXTERNAL POWER CONTACTOR (66A6K3)	03Q45	Q8L265	IMSFD FIG. 35 ZONE 20B, 24B 12B, 16B, 5B 4B, 3B, 1A,	265
266	DC-1 POLE	V=28VDC	FLIGHT CONTROL BACKUP MODULE (63B2)				SAME AS ITEM 265	11Q30	Q8L266	IMSFD FIG. 35 ZONE 1A, 3B, 4B, 5B, 26B, 28B 25B, 27B	266
267	RELAY DRIVER	V=28VDC	FLIGHT CONTROL BACKUP MODULE ELECTRIC MOTOR (63B2) HIGH SPEED RELAY				CB39(5A) EMERG. FLT HYD MAN (36A1) CB40(7.5A) EMERG. FLT HYD AUTO (36A1) P/O K29-MLG SAFETY N P/O K2-MLG SAFETY D (R.GLOVE RELAY BOX 772A1) P/O AC EXTERNAL POWER CONTACTOR (66A6K3)	11Q31	Q8L267	IMSFD FIG. 35 ZONE 25A, 6C, 5B, 7C, 1A, 4B, 3B	267
268	RELAY DRIVER	V=28VDC	FLIGHT CONTROL BACKUP MODULE (63B2) ELECTRIC MOTOR-LOW SPEED RELAY				CB39(5A) EMERG. FLT HYD MAN (36A1) CB40(7.5A) EMERG. FLT HYD AUTO (36A1) P/O AL EXTERNAL POWER CONTACTOR (66A6K3)	11Q32	Q8L268	IMSFD FIG. 35 ZONE 25A, 7C 4C, 5B, 2B 1A	268
269	DC-3 POLE (COULD BE 3-SINGLE POLE PC'S)	V=115VAC ϕA,B,C	FLIGHT CONTROL BACKUP MODULE (63B2) ELECTRIC MOTOR	100%			CB34(50A) ϕA FLT HYD BACKUP (35A1) CB32(50A) ϕB FLT HYD BACKUP (35A1) CB30(50A) ϕC FLT HYD BACKUP (35A1)		Q8L269	IMSFD FIG. 35 ZONE 1B, 25A	269

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 35 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
270	AC-3 POLE	V=115VAC ϕA,B,C, I= 10A CONT					CB19(10A) SOL PWR ϕA (35A5) CB16(10A) SOL PWR ϕB (35A5) CB14(10A) SOL PWR ϕC (35A5) CB40(7.5A) EMERG FLT HYD SUPO (36A1) CB14(3A) ANT LOCK EXCIT (36A4) P/O AC EXT. PWR CONTACTOR 66A6K3, 66A6K1, 66A6K2 P/O PMS RELAY ASSEMBLY 27A 3B (K2-OBC TEST) P/O K30 MLG SAFETY P (R.GLOVE RELAY BOX 772A1) P/O K2-SOL. PWR (FWD RELAY BOX 781A1) CB48(5A) RADAR SUBSYS NO. 1 (AMG 9 DC PWR SUP)	03422	TBL270	IWSFD FIG.35 ZONE 8C, 4C, 3B, 2B, 1A IWSFD FIG. 4A 73A, 73B, 71C 70C, 2A, 1B, 2B	270
271	AC-1 POLE	V=115VAC ϕA I=5A	a) HYDRAULIC PRESSURE TRANSMITTER (COMBINED) (37B2) b) P/O HYDRAULIC PRESSURE INDICATOR (37M1)	100%			CB19(5A) COMB HYD PRESS IND (35A2)	03423	IHL271	IWSFD FIG.35 ZONE 3B, 2C, 1C	271
272	AC-1 POLE	V=115VAC ϕA I=5A	a)HYDRAULIC PRESSURE TRANSMITTER (FLIGHT) (37B1)	100%			CB18(5A) FLT HYD PRESS IND (35A2)	03424	IHL272	IWSFD FIG.35 ZONE 3C, 2C, 1C	272
273	LAMP DRIVER	V=28VDC	P/O PILOT CAUTION ADVISORY INDICATOR (69A1) - HYD PRESS				P/O PILOT CAUTION ADVISORY INDICATOR (69A1)-HYD PRESS CB40(7.5A) EMERG. FLT HYD. AUTO	01D05	IHL273	IWSFD FIG.35 ZONE 4A, 2B, 1A	273

TABLE II P-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 35 SHEET 9

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
274	DC-1 POLE	V=28VDC I=5A	HYDRAULIC PRESSURE INDICATOR (37M1)	100%			CB20(5A)HYD PRESS IND (36A2)	01D06	DHL274	IWSFD FIG.35 ZONE 1A, 5A	274
275	RELAY DRIVER	V=28VDC	HYDRAULIC PRESSURE INDICATOR (37M1) EMERGENCY FLIGHT HYDRAULIC INDICATOR RELAY (LOW)				P/O EMER FLT HYDR IND RELAY K69 (LEFT GLOVE RELAY BOX 773A1) P/O MLG SAFETY 'N' RELAY K29 (RIGHT GLOVE RELAY BOX 772A1) AUX HYD CONT (SYSTEM TEST AND SYSTEM POWER PANEL 79CM1) P/O MLG SAFETY F RELAY K2 (R.GLOVE RELAY BOX 772A1) P/O AC EXTERNAL POWER CONTACTOR (66A6K3) CB40-EMERG FLT HYD AUTO (36A1)	01D07	DHL275	IWSFD FIG.35 ZONE 25C, 26C 7A, 6C, 5B, 4B, 3B, 1A,	275
276	RELAY DRIVER	V=28VDC	HYDRAULIC PRESSURE INDICATOR (37M1)-EMERGENCY FLIGHT HYDRAULIC INDICATOR RELAY (HI)				SAME AS ITEM 275	01D08	DHL276	IWSFD FIG.35 ZONE 20C, 26C 7A, 6C, 5B, 4B, 3B, 1A,	276

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 35 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
262	QSL262 = QGS183 • (QGS182 + GDS002 + GDS102 + XAS180 • DHS032 + XAS180 + DHS031) • (XAS180 + EPS163 • EPS181)* • DHS032	002 031 032 102 163 180 181 182 183	262	2	a)THE TERM (XAS180 + EPS163 • EPS181) REQUIRES 10 SECOND TIME DELAY AFTER GOING TO (XAS180 • EPS163 + EPS181) b) ESS. NO. 2 BUS	IWSFD FIG.35 ZONE 23B, 19B 8B, 7B, 1A, 3A 5B, 7A	COMBINED TRANSFER PUMP SHUTOFF VALVE (28VDC) = HYD TRANSFER PUMP-NORMAL AND (TRANSFER PUMP-ON OR LEFT OR RIGHT MLG-WEIGHT ON WHEELS NOT OR EXTERNAL AC PWR NOT ON LINE AND FLT PRESSURE-<2100 PSI OR EXTERNAL AC PWR-ON LINE OR COMBINED PRESSURE- <2100 PSI) AND (EXTERNAL AC PWR-ON LINE OR COMBINED SYS. PRESS - >400 PSI AND FLT. SYS. PRESS - > 400 PSI)* AND FLT PRESSURE - > 2100 PSI
263	QSL263 = QGS183 + DHS032 + (XAS180 • EPS163 + EPS181)* + (QGS182 • GDS002 • GDS102 • XAS180 + DHS032 • XAS180 • DHS031)	002 031 032 102 163 180 181 182 183	263	2	a)THE TERM (XAS180 • EPS163 + EPS181) REQUIRES 10 SECOND DELAY AFTER BECOMING TRUE b) ESS. NO. 2 BUS	IWSFD FIG.35 ZONE 11B, 15B 8B, 7A, 1A, 3A, 2A, 5B, 4B, 3B, 2B	FLIGHT TRANSFER PUMP SHUTOFF VALVE (28VDC) = HYD TRANSFER PUMP-SHUTOFF OR FLT. PRESSURE < 2100 PSI OR (EXTERNAL AC PWR - NOT ON LINE AND COMBINED SYSTEM PRESSURE - < 400 PSI OR FLT SYSTEM PRESSURE - < 400 PSI OR (TRANSFER PUMP - OFF AND LEFT AND RIGHT MLG WEIGHT ON WHEELS AND EXTERNAL AC PWR - ON LINE OR FLT PRESSURE > 2100 PSI AND EXTERNAL AC PWR - NOT ON LINE AND COMBINED PRESSURE - > 2100 PSI)
264	QSL264 = (GDS052 + DHS032) • (GDS002 +GDS102)	002 052 032 102	264	2	ESS. NO. 2 BUS	IWSFD FIG.35 ZONE 24C, 20C, 8A, 7A, 1A	NORMAL ISOLATION SHUTOFF VALVE (28VDC) = LANDING GEAR CONTROL - UP (FLT) OR FLIGHT PRESSURE SWITCH - < 2100 PSI AND LEFT ON RIGHT MLG WEIGHT ON WHEELS NOT
265	QSL265 = QGS18x • GDS002 • GDS102 • XAS180	002 102 180 182	265	2	ESS. NO. 2 BUS	IWSFD FIG.35 ZONE 24B, 20B, 16B, 12B, 5B, 4B, 3B, 1A	FLT/GND AND COMBINED GND TEST SHUTOFF VALVE (28VDC) = TRANSFER PUMP - ON AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND EXTERNAL AC POWER - ON LINE
266	QSL266 = XAS180 • GDS002 • GDS102 • • QGS185 • QGS184	002 102 180 184 185	266	2	ESS. NO. 2 BUS	IWSFD FIG.35 ZONE 1A, 3B, 4B, 5B, 26B, 28B 25B, 27B	BACKUP MODULE GROUND SOLINOID VALVE (28VDC) = EXTERNAL AC PWR - ON LINE AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND AUX HYD CONT - ON AND BACKUP MODULE TEMP SWITCH - CLOSED (< 180°F)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 35 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
267	QGL267 = QGS186 + GDS002 • GDS102 • QGS185 • QGS184 • XAS180	002 102 180 184 185 186	267	1	ESS. NO. 1 BUS	IWSFD FIG.35 ZONE 25A, 6C, 5B, 7C, 1A, 4B, 3B	FLIGHT CONTROL BACKUP MODULE - ELECTRIC MOTOR HIGH SPEED RELAY ENERGIZED (HIGH SPEED) = EMERG FLT HYD - HI OR LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND AUX. HYD CONT - ON AND BACKUP MODULE TEMP. SWITCH - CLOSED (COOL) AND EXTERNAL AC PWR - ON LINE
268	QGL268 = $\overline{\text{QGS186}}$ + $\overline{\text{DHS031}}$ • DHS032 • XAS180	031 032 180 186	268	1	ESS. NO. 1 BUS	IWSFD FIG. 35 ZONE 25A, 7C, 4C, 5B, 2B, 1A	FLIGHT CONTROL BACKUP MODULE - ELECTRIC MOTOR LOW SPEED RELAY ENERGIZED (LOW SPEED) = EMERG FLT HYD - LOW OR COMBINED AND FLIGHT PRESSURE SWITCH'S < 2100 PSI AND EXTERNAL AC PWR - NOT ON LINE
269	QGL269	N/A	269	3	R. MAIN BUS	IWSFD FIG. 35 ZONE 1B, 25A	FLIGHT CONTROL BACKUP MODULE - ELECTRIC MOTOR ØA, B & C = 115 VAC R MAIN BUS ENERGIZED
271	DHL271	N/A	271	2	ESS. NO. 2 BUS	IWSFD FIG. 35 ZONE 3B, 2C, 1C	HYDRAULIC PRESSURE TRANSMITTER (COMBINED) (37E2) - 115 VAC AND HYDRAULIC PRESSURE INDICATOR (COMB) (37M1) - 115 VAC = 115 VAC ESS NO. 2 INSTR BUS ENERGIZED
272	DHL272	N/A	272	2	ESS. NO. 2 INSTR BUS	IWSFD FIG. 35 ZONE 3C, 2C, 1C	HYDRAULIC PRESSURE TRANSMITTER (FLIGHT) (37B1) - 115VAC AND HYERAULIC PRESSURE INDICATOR (FLT) (37M1) - 115VAC = 115VAC ESS. NO. 2 INSTR BUS ENERGIZED
273	DHL273 = $\overline{\text{DHS031}}$ + $\overline{\text{DHS032}}$	031 032	273	1	ESS. NO. 1 BUS	IWSFD FIG. 35 ZONE 4A, 2B, 1A	PILOT CAUTION ADVISORY INDICATOR (69A1) HYD PRESS (ILLUMINATED) = COMBINED PRESSURE - < 2100 PSI OR FLIGHT PRESSURE < 2100 PSI
274	DHL274	N/A	274	2	ESS. NO. 2 BUS	IWSFD FIG. 35 ZONE 1A, 5A	HYDRAULIC PRESSURE INDICATOR (36A2) - 28VDC = 28VDC ESS NO. 2 BUS ENERGIZED
275	DHL275 = ($\overline{\text{GDS002}}$ • $\overline{\text{GDS102}}$) • QGS187	002 102 187	275	1	ESS. NO. 1 BUS	IWSFD FIG. 35 ZONE 28C, 26C 7A, 6C, 5B, 4B, 3B, 1A.	EMERGENCY FLIGHT HYDRAULIC INDICATOR (37M1) (LOW) = LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT AND BACKUP MODULE PRESSURE SWITCH - CLOSED

TABLE III F-14 SORTEL BOOLEAN EQUATIONS

FIGURE 35 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
276	DHL276 = (GDS002 • GDS102) • QGS187	002 102 187	276	1	ESS. NO. 1 BUS	IWSFD FIG. 35 ZONE 28C, 26C 7A, 6C, 5B, 4B, 3B, 1A	EMERGENCY FLIGHT HYDRAULIC INDICATOR (37M1) (HI) = LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND BACKUP MODULE PRESSURE SWITCH - CLOSED
270	TBL270 = |$\overline{DHS032}$ • $\overline{DHS031}$ • $\overline{XAS180}$ • (XAS003 + XASC04)| + (GDS002 • GDS102 • HMS127 • TBS721)	002 003 004 031 032 102 127 180 721	270	1	ESS. NO. 1 BUS	IWSFD FIG. 35 ZONE 8C, 4C, 3B, 2B, 1A. IWSFD FIG. 4A 73A, 73B, 71C 70C, 2A, 1B	SOLINOID POWER SUPPLY (27A7) (015) - 115VAC ØA,B,C = (FLIGHT PRESSURE AND COMBINED PRESSURE - < 2100 PSI AND EXTERNAL AC PWR - NOT ON LINE AND RIGHT OR LEFT MAIN AC PWR - ON LINE) OR (LEFT AND RIGHT MLG -WEIGHT ON WHEELS AND GND CLG - OBC/CABIN AND OIL FLOW - > 1.0 GPM)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 37 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
105	PRESSURE - > 2000 ± 50 PSI	DHS 105	SPOILER/HIGH-LEFT BACKUP MODULE (53B1) PRESSURE SWITCH	LEFT SIDE FS440	PRESSURE SWITCH	> 2000 ± 50PSI= GND > 2000 ± 50PSI= OPEN	HYDRAULIC PRESSURE INDICATOR (37M1)	N/A	05P18	IWSFD FIG. 37 ZONE 5C	180	RESISTOR DIVIDER ADAPTER
106	SPOILERS - ON	CGS 106	SYSTEM TEST - SYSTEM POWER PANEL (790A1) SPOILERS SWITCH	NFO'S LEFT KNEE PANEL FS300	TOGGLE SWITCH	ON = OPEN OFF = SWITCHED 28V	OUTBOARD SPOILERS MOTOR-PUMP POWER RELAY K1	SPOILERS-ON/OFF SWITCH	03P17	IWSFD FIG. 37 ZONE 5A		SOLID STATE
107	EXTERNAL ELECTRICAL POWER - ON	XAS107	AC POWER CONTACTOR ASSEMBLY (66A3K3)	LEFT SIDE FS330 WL140	PRESENTLY ELEC. CONTACTORS (REQUIRES VOLTAGE SENSE CIRCUIT FOR EXTERNAL PWR)	ON = SWITCHED 28V OFF = OPEN	SAME AS ITEM 106	N/A	05P19	IWSFD FIG. 37 ZONE 4B		RESISTOR DIVIDER ADAPTER
108	TEMP. SWITCH > 275° ± 15°	EMS108	SPOILERS/HIGH-LIFT BACKUP MODULE (52B1) TEMPERATURE SWITCH	LEFT SIDE FS440	TEMPERATURE SWITCH	> 275° ± 15°= SWITCHED 28VDC < 275° ± 15°= OPEN	SAME AS ITEM 106	N/A	05P20	IWSFD FIG. 37 ZONE 5C		RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 37 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
180	DC- 1 POLE (INDICATOR DRIVER)	V=28VDC I=5A	HYDRAULIC PRESSURE INDICATOR (37M1) SPOILER				CB2D(5A) HYD PRESS IND (36A2)	01D09	IHL180	IWSFD FIG. 37 ZONE 3C, 5C	180
181	AC-3 POLES	V=115VAC ØA,B, & C I=50 AMP EACH	SPOILER/HIGH-LIFT BACKUP MODULE (53B1) ELECTRIC MOTOR				CB35(50A) OUTBOARD SPOILER PUMP PH A (35A1) CB33(50A) OUTBOARD SPOILER PUMP PH B (35A1) CB31(50A) OUTBOARD SPOILER PUMP PH C (35A1) CB60(3A) HYD PUMP SPOILER (36A2) CB3(5A) AUX FLAP/FLAP CONTR (36A2) P/O K4 MLG SAFETY "L" RELAY (L.GLOVE RELAY BOX 773A1) P/O K89 MLG SAFETY "R" RELAY (L.GLOVE RELAY BOX 773A1) P/O K18 MLG SAFETY "A" RELAY (L.GLOVE RELAY BOX 773A1) OUTBOARD SPOILERS MOTOR/PUMP POWER RELAY - K1 (HYD. BACKUP CONTACTOR ASSEMBLY 787A1)	03Q50	CGL181	IWSFD FIG. 37 ZONE 7B, 6A 6C, 5C, 4B 3B, 3A	181

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 37 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
180	DHL180 = DHS105	105	180	2	ESS. NO. 2 BUS	IWSFD FIG. 37 ZONE 3C, 5C	SPOILER PRESSURE ON = PRESSURE SWITCH INDICATING > 2000 ± 50 PSI
181	$\overline{CGL181}$ = CKS001 + $\overline{CGS106}$ • XAS107 + GDS002 • GDS102 • $\overline{XAS107}$ • $\overline{CKS016}$ + EMS108 • ($\overline{GDS052}$ + GDS002 • GDS102)	001 002 036 052 102 106 107 108	181	3	RIGHT MAIN BUS	IWSFD FIG. 37 ZONE 7B, 6A, 6C, 5C, 4B, 3B 3A	115VAC ϕA,B & C POWER TO THE SPOILER/HIGH LIFT BACKUP MODULE MOTOR IS OFF = WING SWEEP < 62° OR SYSTEM TEST SPOILER SWITCH IS OFF AND EXTERNAL POWER FOR GND TEST IS ON OR L AND R MLG WEIGHT IS ON WHEELS AND EXTERNAL POWER IS OFF AND THE FLAP HANDLE IS < 6° OR THE BACKUP MODULE TEMPERATURE SWITCH INDICATES > 275° ± 15° AND THE MLG HANDLE IS UP OR L AND R MLG WEIGHT IS ON WHEELS

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 38 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
109	RIGHT ENG OIL TEMP > 250°F	EMS109	ENGINE OIL TEMP SWITCH (70A4)	RIGHT ENGINE FS380	TEMPERATURE SWITCH	> 250°F = SWITCH 28VDC < 250°F = OPEN	a) L OIL HOT b) R OIL HOT PILOT CAUTION & ADVISORY INDICATOR	ENGINE OIL TEMP SWITCH (70A4)	04P15	IWSFD FIG 38 ZONE 1A NAVAIR 01-F14AAA 2-2-6 00600 FIG. 2	190	SOLID STATE
157	RIGHT OVSP	EUS157	ENGINE ROTOR OVERSPEED DETECTOR (34MG1)	RIGHT SIDE FS220	N/A	OVSP = 28VDC $\overline{OVSP}$ = OPEN	R OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	N/A	07D23	IWSFD FIG. 38 ZONE 8B	229	EXTERNAL SIGNAL ADAPTER
158	LEFT OVSP	EU158	ENGINE ROTOR OVERSPEED DETECTOR (34MG1)	RIGHT SIDE FS220	N/A	OVSP = 28VDC $\overline{OVSP}$ = OPEN	L OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	N/A	07D24	IWSFD FIG. 38 ZONE 8C	230	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 38 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
182	DC - 1 POLE	V=28VDC I= 3A	TONE GENERATOR (34A2)	100%			CB68(3A) ENG. STALL TONE (36A2)	01D10	EWL182	IWSFD FIG. 38 ZONE 11B, 1A	182
183	AC - 1 POLE	V=115VAC ØB I=3A	FUEL FLOW INDICATOR (34M1)	100%			CB27(3A) R. ENG. FUEL FLOW IND. (35A2)	03Q25	EHL183	IWSFD FIG. 38 ZONE 15A, 1B	183
184	AC - 1 POLE	V=115VAC ØB I = 3A	RPM INDICATOR (34M3) (LEFT CHANNEL)	100%			CB22(3A) L. ENG. N_2 TACH (35A2)	03Q26	EUL184	IWSFD FIG. 38 ZONE 6B, 1B	184
185	AC - 1 POLE	V=115VAC ØB I = 3A	RPM INDICATOR (34M3) (RIGHT CHANNEL)	100%			CB21(3A) R. ENG N_2 TACH (35A2)	03Q27	EUL185	IWSFD FIG. 38 ZONE 6B, 1B	185
186	AC - 1 POLE	V=115VAC ØB I = 3A	TIT INDICATOR (34M2) (LEFT CHANNEL)	100%			CB25(3A) L. TIT IND. (35A2)	03Q28	ELL186	IWSFD FIG. 38 ZONE 9B, 1B	186
187	AC - 1 POLE	V=115VAC ØB I = 3A	TIT INDICATOR (34M2) (RIGHT CHANNEL)	100%			CB24(3A) R. TIT IND. (35A2)	03Q29	ELL187	IWSFD FIG. 38 ZONE 10C, 1B	187
188	AC - 1 POLE	V=115VAC ØB I = 3A	a) ENGINE ROTOR OVERSPEED DETECTOR (34MG1) b) FUEL RATE-OF-FLOW POWER SUPPLY (34A1) c) FF INDICATOR (34M1)				CB16(3A) ENG. FUEL FLOW L IND/OVSP (35A2)	04Q63 02Q03 03Q30	EHL188	IWSFD FIG. 38 ZONE 1A, 7C 11B, 14B	188
189	DC - 1 POLE	V=28VDC I = 5A	ENGINE ROTOR OVERSPEED DETECTOR (34MG1)	100%			CB24(5A) OVSP CAUTION/ R OIL HOT (3642)	05Q01	EML189	IWSFD FIG. 38 ZONE 1A, 7B	189
190	LAMP DRIVER	V=28VDC	R OIL HOT PILOT CAUTION & ADVISORY INDICATOR (69A1)				SHARED WITH CB24 (ITEM 189)	01D11	EML190	IWSFD FIG. 38 ZONE 1A NAVAIR 01-F14AAA-2-2-6 00600 FIG. 2	190

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 38 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
191	AC - 1 POLE	V-26VAC I - 3A	a) R ENG. EXHAUST NOZZLE POSITION INDICATOR (34M4) b) R ENG. OIL PRESSURE INDICATOR (34M8) c) R. EXHAUST NOZZLE POSITION TRANSMITTER (34B4) d) R OIL PRESSURE TRANSMITTER (34L2)	100% 100% 100% 100%			CB3(3A) R ENG. OIL PRESS/NOZ IND (35A4)	03Q35	EPL191	IWSFD FIG. 38 ZONE 1C, 2A, 2B, 4A, 4B	191

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 38 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
192	AC-1 Pole	V-26 VAC	a) Left oil pressure transmitter (34 L2)	100%			CB4(3A) L Eng. Oil Press/Noz Ind.	03Q36	EPL292	IWSFD Fig.38 Zone 1C, 3B, 3C, 4B, 4C	192
			b) Left exhaust nozzle position transmitter (34B4)	100%							
			c) Left engine oil pressure indicator (34M3)	100%							
			d) Left engine exhaust nozzle position indicator (34M5)	100%							

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 38 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
182	EWL182	NA	182	2	ESS. No. 2 Bus	IWSFD Fig. 38 Zone 11B, 1A	28VDC to the tone generator = 28 VDC Ess. #2 Bus energized
183	EHL183	NA	183	2	Instrument Bus	IWSFD Fig. 38 Zone 15A, 1B	115VAC ØB to the fuel flow indicator = 115VAC ØB instrument Bus energized
184	EUL184	NA	184	2	Instrument Bus	IWSFD Fig. 38 Zone 6B, 1B	115VAC ØB to the left channel RPM indicator = 115VAC ØB instrument Bus energized
185	EUL185	NA	185	2	Instrument Bus	IWSFD Fig. 38 Zone 6B, 1B	115VAC ØB to the right channel RPM indicator = 115VAC ØB instrument Bus energized
186	ELL186	NA	186	2	Instrument Bus	IWSFD Fig. 38 Zone 9B, 1B	115VAC ØB to the left channel turbine inlet temperature (TIT) indicator = 115VAC Ø instrument Bus energized
187	ELL187	NA	187	2	Instrument Bus	IWSFD Fig. 38 Zone 10C, 1B	115VAC ØB to the right channel turbine inlet temp. (TIT) indicator = 115VAC ØB instrument Bux energized
188	EHL188	NA	188	2	Instrument Bus	IWSFD Fig. 38 Zone 1A, 7C, 11B, 14B	115VAC ØB to the a) Engine rotor overspeed detector b) Fuel Rate-of-Flow Pwr supply c) FF indicator = 115VAC ØB instrument Bus energized
189	EML189	NA	189	2	ESS. No. 2 Bus	IWSFD Fig. 38 Zone 1A, 7B	28VDC to the engine rotor overspeed detector = 28VDC ESS. #2 Bus energized
190	EML190 = EMS109	109	190	2	ESS. No. 2 Bus	a) IWSFD Fig. 38 Zone 1A b) NAVAIR 01-F14AAA-2-2-6 00600 Fig. 2	R Oil hot indicator ON = Right engine oil temperature switch closed (> 250°F)
191	EPL191	NA	191	2	Eng. Inst. Bus	IWSFD Fig. 38 Zone 1C, 2A, 2B 4A, 4B	26VAC to the a) R. Eng exhaust nozzle position indicator b) R. Eng. oil press. indicator c) R. Exhaust nozzle position transmitter d) R. Oil press. transmitter = 26VAC engine instrument Bus energized

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 38 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
192	EFL192	NA	192	2	Eng. Inst. Bus	IWSFD Fig. 38 Zone 1C, 3B, 3C 4B, 4C	26VAC to the a) L. Oil press. transmitter b) L. Exhaust nozzle position transmitter c) L. Eng. oil press. indicator d) L. Eng. exhaust nozzle position indicator = 26VAC engine instrument Bus energized

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 39 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
110	Left engine mach switch - ≥ 2.1 Mach	KCS110	Left Engine Mach Switch (MCB Bleed System)	Left Engine FS650	Limit Switch	≥ 2.1 Mach = switched 28VDC < 2.1 Mach = open	Left engine MCB Bleed Control Solenoid	Left engine mach switch	06P30	IWSPD Fig. 39 Zone 8A	193	Solid state
111	Left engine PLA Switch - idle	KCS111	Left engine PLA switch (MCB Bleed System)	Left Engine Electro-Mech Rotary Actuator FS640	Limit switch	Idle = switched 28VDC, INTMD and above = open	Left engine MCB Bleed Control Solenoid	N/A	06P31	IWSPD Fig. 39 Zone 8A	193	Resistor Divider Adapter
112	Left not stowed > 0.9 Mach	KCS112	Left diffuser ramp out of stow switch (328A) (Left air inlet control system)	Left inlet Glove FS460	Limit switch	Not stowed > 0.9 Mach = switched 28VDC Stowed < 0.9 Mach = Open	Left engine MCB Bleed Control Solenoid	Left Diffuser Ramp out of stow switch (328A)	05P21	IWSPD Fig. 39 Zone 4C	193 540	Solid State
113	Left Throttle < 31°	QKS113	Throttle Quadrant (711A1)	Pilots Left Side Console FS225	Limit Switch	< 31° = Switched 28VDC > 31° = Open	a) K200 R. engine airflow improvement time delay (left glove relay box 773A1) b) K201 - L. engine airflow improvement time delay relay (left glove relay Box 773A1) c) Left engine MCB Bleed Control Solenoid	N/A	01P39	IWSPD Fig. 39 Zone 3C	193	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 39 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
114	Left Bleed Exit Door Command - ON	KCS114	Left air inlet control programmer (32A6)	Left PS380	N/A (Relay Drive Circuit)	ON = GND OFF = OPEN	K66- L AICS bleed door position/MCB relay (left glove relay box 773A1)	N/A	05027	IWSFD Fig. 39 Zone 6A IWSFD Fig.4 Zone 15C, 19C	193	External Signal Adapter
115	Rudder left deflection - > 10°	CJS115	MCB Rudder Switch (80S1)	PS700	Limit switch	> 10° = switched 28VDC < 10° = Open	a) K201 left engine airflow improvement time delay relay (Left glove relay box 773A1) b) K200 right engine airflow improvement time delay relay (left glove relay box 773A1)	MCB Rudder Switch (80S1)	07P29	IWSFD Fig. 39 Zone 5C	193	Solid State
116	Rudder right deflection - > 10°	CJS116	MCB Rudder switch (80S2)	PS700	Limit switch	> 10° = switched 28VDC < 10° = Open	Same as Item 115	MCB Rudder Switch (80S2)	07P30	IWSFD Fig. 39 Zone 5B	193 194	Solid state
117	Right throttle - < 31°	QKS117	Throttle quadrant (711A1)	Pilots left side side console PS225	Limit switch	< 31° = Switched 28VDC > 31° = Open	a) R. engine MCB bleed control solenoid b) K200 - R. engine airflow improvement time delay relay (left glove relay box 773A1)	N/A	02P43	IWSFD Fig. 39 Zone 3C	194	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 39 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
117 (cont'd)							c) K201 - L. engine airflow improvement time delay relay (left glove relay box 773A1)					
118	Right not stowed > 0.9 Mach	KCS 118	Right diffuser ramp out of stow switch (3288) (right air inlet control system)	Right inlet glove FS460	Limit switch	Not stowed > 0.9 Mach = switched 28VDC Stowed < 0.9 Mach = Open	Right engine MCB bleed control solenoid	Diffuser ramp out of stow switch (3288)	04P16	IWSFD Fig. 39 Zone 4A	194 539	Solid state
119	Right bleed exit door command - ON	KCS119	Right air inlet control programmer (32A7)	Right FS380	N/A (Relay drive circuit)	ON - GND OFF = Open	K67 right bleed door position/ MCB relay (left glove relay box 773A1)	N/A	07D25	IWSFD Fig. 39 Zone 6B IWSFD Fig.4 Zone 19A, 16C	194	External Signal Adapter
120	Inflight refueling probe door - Open	QPS120	Inflight refuel probe door switch (62S1)	Right FS170	Limit switch	Door Open - GND Door closed = 28VDC or open	K87 MCB Open/refueling probe (Left glove relay box 773A1)	Inflight refuel probe door switch (62S1)	02P44	IWSFD Fig. 39 Zone 6C IWSFD Fig. 41 Zone 8B	194 502	Solid state
121	AOA ≥ 17 units (> 12° AOA)	FDS121	Angle of Attack (AOA) Indicator (45A2)	Pilots left instrument panel FS225	Limit switch	> 17 units = switched 28VDC < 17 units = open	K88 - > 12° AOA Relay (R. Glove relay box 772A1)	N/A	01P40	IWSFD Fig. 39 Zone 3C	193 194	Resistor Divider Adapter

TABLE I F-14 SCSTEL SIGNAL TRANSDUCERS

FIGURE 39 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
122	Right engine Mach switch - ≥ 2.1 Mach	KCS122	Right engine Mach switch (MCB bleed system)	Right Engine FS650	Limit switch	≥ 2.1 Mach = Switched 28VDC < 2.1 Mach = Open	Right engine MCB bleed control solenoid	Right engine Mach switch	07P31	IWSFD Fig. 39 Zone 8A	194	Solid state
123	Right engine PLA switch - Idle	KCS123	Right engine PLA switch (MCB bleed system)	R. engine Elect. - Mech. Rotary Actuator FS640	Limit switch	Idle = Switched 28VDC, INTMD and above = Open	Right engine MCB bleed control solenoid	N/A	07P32	IWSFD Fig. 39 Zone 8A	194	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 39 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
193	DC-1 Pole	V=28VDC I=5A	Left engine MCB bleed solenoid				CB57(5A) L mid CPRSN bypass (36A2) (Same as Item 151) CB59 (5A) Mach lever shift (36A2) P/O K18 MLG handle relay A (Left glove relay box 773A1) P/O K57 Gun/missle firing interlock 5 second time delay relay (left glove relay box 773A1) P/O K66 L. AICS bleed door position/MCB relay (left glove relay box 773A1) P/O K201 Left engine airflow improvement time delay relay (left glove relay box 773A1) P/O K88 > 12° angle-of-attack relay (right glove relay box 772A1)	09R08	KJL193	IWSPD Fig. 39	193

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 39 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
194	DC - 1 Pole	V=28VDC I=5A	Right engine MCB BLEED SOLENOID				CB58 (5A) R mid CPRSN bypass (36A2) see item 140 CB59 (5A) Mach lever shift (36A2) (shared with item 193) P/O K87 MCB Open/ re-fueling probe (left glove relay box 773A1) P/O K67 right bleed door position/MCB relay (left glove relay box 773A1) P/O K200 right engine airflow improvement time delay relay (left glove relay box 773A1) P/O K57 Gun/Missle Firing Interlock 5 sec. time delay relay (left glove relay box 773A1) P/O K20 MLG control handle relay B and P/O K88 > 12° AOA relay (right glove relay box 772A1)	10Q07	KJL194	IWSPD Fig. 39	194

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 39 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transaducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
193	KJL193 = KCS110 + (KCS111 • GDS052) + (KCS112 • QKS113) + KCS076* +KCS114 + (QKS113 • CJS115 + CJS116)** + (FDS121 • QKS113)	052 076 110 111 112 113 114 115 116 121	193	2	a) See *, ** b) Ess. No. 2 Bus	IWSFD Fig. 39	28VDC to the left engine mid compression bypass bleed solenoid = left engine ≥ 2.1 Mach OR left engine PLA-IDLE AND MLG handle-down OR left air inlet diffuser ramp - not stowed AND left throttoe - < 31° OF (Gun/Missle Firing)* OR left air inlet bleed exit door command OR (Left throttle - < 31° AND rudder deflection > 10° left OR right)** OR angle of attack - > 12° AND left throttle - < 31° * (Gun/Missle firing) - Requires 5 second drop-out time delay after siangl goes false ** (Left throttle <31° and rudder deflection >71° left or right) - Requires 1 second drop-out time delay IF throttle <31° AND rudders < 10°, "Immediate" drop-out IF throttle > 31° AND rudders > 10°
194	KJL194 = KCS122 +(KCS123 • GDS052) +(KCS118 • QKS117) • KCS076* + KCS119 + QKS120 + (QKS117 • CJS115 +CJS116)** + (FDS121 • QKS117)	052 076 116 117 118 119 120 121 122 123	194	2	a) See *, ** b) Ess. No. 2 Bus	IWSFD Fig. 39	28VDC to the right engine mid compression bypass bleed solenoid = right engine ≥ 2.1 Mach OR right engine PLA - IDLE AND MLG handle-down OR right air inlet diffuser ramp - not stowed AND right throttle - < 31° OR (Gun/missle firing)* OR right air inlet bleed exit door command OR inflight refueling probe door - open OR (right throttle - <31° AND rudder deflection > 10° left OR right)** OR angle or attack - > 12° AND right throttle - < 31° * (Gun/missle firing) required 5 second drop-out time delay after signal goes false **(right throttle < 31° AND rudder deflection > 10° left OR right) - requires 1 second drop-out time delay IF throttle < 31° AND rudders < 10°, "Immediate" drop-out if throttle > 31° and rudders > 10°

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 40 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equations	13 Conditioning Technique
131	LEFT ENGINE-CRANK	KKS 131	EXT ENVIRONMENT/ THROTTLE CONTROL PANEL (710A1) OR ENGINE CONTROL PANEL (710A1)	PILOTS LEFT SIDE CONSOLE STA 225	TOGGLE SWITCH DPDTCO	L. ENGINE CRANK - SWITCHED 28VDC OFF = OPEN	K9 - L. ENG. START A RELAY K7-L. ENG. START B RELAY (LEFT GLOVE RELAY BOX 773A1) K3-MISCELLANEOUS START A RELAY K16 - MISCELLANEOUS START B RELAY (RIGHT GLOVE RELAY BOX 772A1)	ENG. CRANK - L/R SWITCH S1	01P41	IWSFD FIG. 40 ZONE 4A	211 214 213 212 225 226 227 229 230 231 232 553	SOLID STATE
132	RIGHT ENGINE-CRANK	KKS 132	EXT. ENVIRONMENT/ THROTTLE CONTROL PANEL (710A1) OR ENGINE CONTROL PANEL (710A1)	PILOTS LEFT SIDE CONSOLE STA 225	TOGGLE SWITCH DPDTCO (SAME AS ITEM 131)	R. ENGINE CRANK - SWITCHED 28VDC OFF = OPEN	K15 - R. ENGINE START A RELAY K9-R. ENGINE START B RELAY K3-MISCELLANEOUS START A RELAY K16- MISCELLANEOUS START B RELAY (R.GLOVE RELAY BOX 772A1)	ENG. CRANK - L/R SWITCH S1	01P42	IWSFD FIG. 40 ZONE 4A	211 214 213 212 224 226 228 229 230 231 233 553	SOLID STATE
133	LEFT ENGINE AUTO RESTART SWITCH-CLOSED	KKS 133	LEFT ENGINE-AUTOMATIC RESTART SWITCH	LEFT ENGINE FS 640	PRESSURE SWITCH	CLOSED=SWITCHED GND OPEN="OPEN"		N/A	06P32	IWSFD FIG. ZONE 11B	211 214 213 212 226 227 229 230 553	RESISTOR DIVIDER ADAPTER

TABLE I P-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 40 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
134	RIGHT ENGINE AUTO RESTART SWITCH-CLOSED	KKS 134	RIGHT ENGINE AUTOMATIC RESTART SWITCH	RIGHT ENGINE FS 640	PRESSURE SWITCH	CLOSED=SWITCHED 28VDC OPEN = "OPEN"		N/A	07P33	IWSFD FIG. 40 ZONE 11B	211 214 213 212 226 228 229 230 553	RESISTOR DIVIDER ADAPTER
135	LEFT ENGINE CUTOFF SWITCH-CLOSED	KKS 135	LEFT ENGINE STARTER	LEFT ENGINE FS 605	STARTER CENTRIFUGAL SWITCH	CLOSED (< 45% N_2 R/MIN) = SWITCHED GND OPEN (> 45% N_2 R/MIN) ="OPEN"	K9-L. ENGINE START A RELAY K7-L. ENGINE START B RELAY (L. GLOVE RELAY BOX 773A1)	N/A	06P33	IWSFD FIG. 40 ZONE 11A	211 214 213 212 225 226 227 229 230 231 232 553	RESISTOR DIVIDER ADAPTER
136	RIGHT ENGINE SWITCH-CLOSED	KKS 136	RIGHT ENGINE STARTER	RIGHT ENGINE FS 605	STARTER CENTRIFUGAL SWITCH	CLOSED (< 45% N_2 R/MIN) = SWITCHED GND OPEN(> 45% N_2 R/MIN) = "OPEN"	K15-R. ENGINE START A RELAY K9-R. ENGINE START B RELAY (R. GLOVE RELAY BOX 772A1)	N/A	07P34	IWSFD FIG. 40 ZONE 11A	211 214 213 212 224 226 228 229 230 231 233 553	RESISTOR DIVIDER ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 40 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
154	AIR START - ON	KKS 154	EXT ENVIRONMENT/ THROTTLE CONTROL PANEL (710A1) AIR START SWITCH (S8)	PILOTS LEFT SIDE CONSOLE FS 225	TOGGLE SWITCH 4 PDT	ON = OPEN NORMAL = SHORT	L. AND R. ENGINE IGNITION TERMINATION TRANSFORMER	AIR STARTER - ON/NORM SWITCH (S8)	01P43	IWSFD FIG. 40 ZONE 4B	227 228	SOLID STATE
155	RIGHT IGNITION SWITCH - 73°	KKS 155	THROTTLE QUADRANT (711A1)	PILOTS LEFT SIDE CONSOLE FS 225	LIMIT SWITCH	>3° = SWITCHED OPEN OR GND <3° = SWITCHED GND	R. ENGINE IGNITION CONTROL P/O IGNITION TERMINATION TRANSFORMER	N/A	01P44	IWSFD FIG. 40 ZONE 7B	228	RESISTOR DIVIDER ADAPTER
156	LEFT IGNITION SWITCH - >3°	KKS 156	THROTTLE QUADRANT (711A1)	PILOTS LEFT SIDE CONSOLE FS 225	LIMIT SWITCH	>3° = SWITCHED OPEN OR GND <3° = SWITCHED GND	L. ENGINE IGNITION CONTROL P/O IGNITION TERMINATION TRANSFORMER	N/A	01P45	IWSFD FIG. 40 ZONE 7C	227	RESISTOR DIVIDER ADAPTER
159	R. ENG. VALVE - OPEN	EQS 159	R. ENG. PRESSURE REGULATOR VALVE POSITION SWITCH	RIGHT ENGINE STARTER FS 605	LIMIT SWITCH	OPEN = SWITCHED 28VDC CLOSED = "OPEN"	R OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	N/A	07P35	IWSFD FIG. 40 ZONE 11A	229	RESISTOR DIVIDER ADAPTER
160	L. ENG. VALVE - OPEN	EQS 160	L. ENG. PRESSURE REGULATOR VALVE POSITION SWITCH	LEFT ENGINE STARTER FS 605	LIMIT SWITCH	OPEN = SWITCHED 28VDC CLOSED = "OPEN"	L OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)	N/A	06P34	IWSFD FIG. 40 ZONE 11A	230	RESISTOR DIVIDER ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 40 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
161	R. ENG. IDLE EXHAUST NOZZLE SOLINOID SWITCH-CLOSED (IDLE)	EJS 161	R. ENG. IDLE EXHAUST NOZZLE SOLENOID SWITCH P/O R. ENGINE FUEL PUMP	RIGHT ENGINE FUEL PUMP FS 600	LIMIT SWITCH	CLOSED (IDLE) = SWITCHED 28VDC OPEN (> IDLE) = "OPEN"	R. ENG. IDLE EXHAUST NOZZLE SOLENOID	N/A	07P36	IWSFD FIG. 40 ZONE 5A, 3A NAVAIR 01-F14AAA-2-2-6 00800 FIGURE 2	234	RESISTOR DIVIDER ADAPTER
162	L. ENG. IDLE EXHAUST NOZZLE SOLINOID SWITCH CLOSED (IDLE)	EJS 162	L. ENG. IDLE EXHAUST NOZZLE SOLENOED SWITCH P/O L. ENG. FUEL PUMP	LEFT ENGINE FUEL PUMP FS 600	LIMIT SWITCH	CLOSED (IDLE) SWITCHED 28VDC OPEN (>IDLE) = "OPEN"	L. ENG. IDLE EXHAUST SOLENOID	N/A	06P35	IWSFD FIG. 40 ZONE 5A, 3A NAVAIR - 01-F14AAA -2-2-6 00800 FIGURE 2	235	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 40 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
224	DC-1 POLE	V=28VDC	RIGHT ENGINE STARTER-PRESSURE REGULATOR SHUTOFF VALVE				K 15 R. ENG. START A (R. GLOVE RELAY BOX 772A1) CB4 (5A) ENG. START (36A3)	10Q08	KKL 224	IWSFD FIG.40 ZONE 12A, 5, 4, 3,	224
225	DC-1 POLE	V=28VDC	LEFT ENGINE STARTER PRESSURE REGULATOR SHUTOFF VALVE				K9 L. ENG. START A (R. GLOVE RELAY BOX 772A1) CB4 (5A) ENG. START (36A3)	09Q09	KKL 225	IWSFD FIG.40 ZONE 3A, 4A, 8, 12A	225
226	DC-1 POLE	V=28VDC	SOLENOID BY PASS VALVE P/O CROSS BLEED ISOLATION BY PASS AND CHECK VALVE (72L1)				K3-MISCELLANEOUS START A	11Q22	KKL 226	IWSFD FIG.40 ZONE 12B, 5A, 3A	226
227	OPEN/GND DRIVER		IGNITION CONTROL-D P/O LEFT ENGINE-IGNITION TERMINATION TRANSFORMER				K9 L. ENG. START A (L. GLOVE RELAY BOX 773A1)	06D41	KKL 227	IWSFD FIG.40 ZONE 11B, 4B 7C, 8A	227
228	OPEN/GND DRIVER		IGNITION CONTROL P/O RIGHT ENGINE-D IGNITION TERMINATION TRANSFORMER				K15 R. ENG. START A (R. GLOVE RELAY BOX 772A1)	06D42	KKL 228	IWSFD FIG.40 ZONE 11B, 4B, 7B, 5B	228
229	LAMP DRIVER	V=28VDC	R OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				CB61 (5A) STARTER CONTR VALVE (36A2) P/O K16 MISC START B R. GLOVE RELAY BOX 772A1)	01D12	EUL 229	IWSFD FIG.40 ZONE 11A, 9A, 5B, 3B IWSFD FIG.38 ZONE 8B	229
230	LAMP DRIVER	V=28VDC	L. OVSP/VALVE LAMP P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				SAME AS ITEM 229	01D13	EUL 230	IWSFD FIG.40 ZONE 11A, 9B 5B, 3B IWSFD FIG. 38 ZONE 8C, 9A	
231	SHORT/OPEN		EXTERNAL AIRSTART RECEPTACLE				P/O K9 L.ENG.START A (L. GLOVE RELAY BOX 773A1) P/O K15 R.ENG.START A (R. GLOVE RELAY BOX 772A1)		KKL 231	IWSFD FIG.40 ZONE 8A, 5B 10C	231

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 40 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
232	DC-1 POLE	V=28VDC	LEFT ENG. EJECTOR REGULATING SHUTOFF VALVE (73L2) P/O OIL COOLER EJECTOR SYSTEM				CB23 (5A) ENG. OIL COOL (36A2) P/O K7 L.ENG.START B (L. GLOVE RELAY BOX 773A1) P/O K10 MLG SAFETY G (R. GLOVE RELAY BOX 772A1)	09Q10	KEL 232	IWSFD FIG.40 ZONE 8B, 3A NAVAIR 01-F14AAA-2-2-6 01400 FIGURE 2	232
233	DC-1 POLE	V=28VDC	RIGHT ENG. EJECTOR REGULATING SHUTOFF VALVE (73L2) P/O OIL COOLER EJECTOR SYSTEM				CB23 (5A) ENG. OIL COOL (36A2) P/O K9 R.ENG.START B P/O K10 MLG SAFETY G (R. GLOVE RELAY BOX 772A1)	10Q09	KEL 233	IWSFD FIG.40 ZONE 5C, 3A NAVAIR -01-F14AAA-2-2-6 01400 FIGURE 2	233
234	DC-1 POLE	V=28VDC	R. ENG. IDLE EXHAUST NOZZLE SOLENOID				CB4 (5A) ENG. START (36A3) P/O K10 MLG SAFETY G (R. GLOVE RELAY BOX 772A1)	09Q11	EJL 234	IWSFD FIG.40 ZONE 5A, 3A NAVAIR 01-F14AAA-2-2-6 00800 FIGURE 2	234
235	DC-1 POLE	V=28VDC	L. ENG. IDLE EXHAUST NOZZLE SOLENOID				CB4 (5A) ENG. START (36A3) P/O K10 MLG SAFETY G (R. GLOVE RELAY BOX 772A1)	10Q10	EJL 235	IWSFD FIG.40 ZONE 5A, 3A NAVAIR 01-F14AAA-2-2-6 00800 FIGURE 2	235

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 40 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
224	KKL 224 KKS 132 • KKS 136	132 136	224	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 3A, 4A, 5B 12A, 11A	RIGHT ENGINE PRESSURE REGULATOR SHUTOFF VALVE ENERGIZED (28VDC) (VALVE OPEN) = RIGHT ENGINE CRANK AND RIGHT ENGINE CUTOFF SWITCH-CLOSED
225	KKL 225 KKS 131 • KKS 135	131 135	223	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 3A, 4A, 8, 12A	LEFT ENGINE PRESSURE REGULATOR SHUTOFF VALVE ENERGIZED (28VDC) (VALVE OPEN) = LEFT ENGINE-CRANK AND LEFT ENGINE CUTOFF SWITCH-CLOSED
226	KKL 226 = KKS 131 • KKS 133 • KKS 135 + KKS 132 • KKS 134 • KKS 136	131 132 133 134 135 136	226	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 12B, 5, 8A, 4A, 1A	SOLENOID BY PASS VALVE (CROSS BLEED ENABLE) = LEFT ENGINE-CRANK AND AUTO RESTART SWITCH-CLOSED AND CUTOFF SWITCH-CLOSED OR RIGHT ENGINE-CRANK AND AUTO RESTART SWITCH-CLOSED AND CUTOFF SWITCH-CLOSED
227	KKL 227 = KKS 154 + (KKS 156 • KKS 131 • KKS 135) + (KKS 156 • (KKS 131 + KKS 135) • KKS 133	131 133 135 156 154	227	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 11B, 4B 7C, 8A	LEFT ENGINE IGNITION CONTROL ENABLED (OPEN CKT, IGNITION ON) = AIR START SWITCH-ON OR LEFT IGNITION SWITCH- > 3° AND LEFT ENGINE-CRANK AND LEFT ENGINE CUTOFF SWITCH-CLOSED OR AIRSTART SWITCH-ON AND ENGINE CRANK-OFF OR LEFT ENGINE CUTOFF SWITCH-OPEN AND LEFT ENGINE AUTO RESTART SWITCH-OPEN
228	KKL 228 = KKS 154 + (KKS 155 • KKS 132 • KKS 136) + KKS 155 •(KKS 132 + KKS 136) • KKS 134	132 134 136 154 155	228	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 11B, 4B 7B, 5B	RIGHT ENGINE IGNITION CONTROL ENABLED (OPEN CKT, IGNITION ON) = AIR START SWITCH-ON OR RIGHT IGNITION SWITCH- > 3° AND RIGHT ENGINE-CRANK AND RIGHT ENGINE CUTOFF SWITCH-CLOSED OR AIR START SWITCH-ON AND ENGINE CRANK-OFF OR RIGHT ENGINE CUTOFF SWITCH-OPEN AND RIGHT ENGINE AUTO RESTART SWITCH-OPEN
229	BUL 229 = BUS 157 + BUS 159 • (KKS 131 + KKS 133 + KKS 135 • KKS 132 + KKS 134 + KKS 136)	131 132 133 134 135 136 157 159	229	2	ESS. No. 2 BUS	IWSFD FIG. 3B ZONE 8B, 9A, IWSFD FIG. 40 ZONE 11A, 9A, 5B, 3B	R OVSP/VALVE - LAMP ON (28VDC) = RIGHT-OVSP OR R. ENG VALVE-OPEN AND L. ENGINE CRANK-OFF OR L. ENG. AUTO RESTART SWITCH-OPEN OR L. ENG. CUTOFF SWITCH-OPEN AND R. ENG. CRANK-OFF OR R. ENG. AUTO RESTART SWITCH-OPEN OR R. ENG. CUTOFF SWITCH-OPEN

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 40 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
230	EUL 230 = EQS 158 + EQS 160 • (KKS 131 + KKS 131 + KKS 135 • KKS 132 + KKS 134 + KKS 136)	131 132 133 134 135 136 158 160	230	2	ESS. NO. 2 BUS	IWSFD FIG. 38 ZONE 8C, 9A IWSFD FIG. 40 ZONE 11A, 9B, 5B, 3B	L OVSP/VALVE - LAMP ON (28VDC) = LEFT-OVSP OR L. ENG VALVE - OPEN AND L. ENG. CRANK-OFF OR L. ENG. AUTO RESTART SWITCH - OPEN OR L. ENG. CUTOFF SWITCH-OPEN AND R. ENG. CRANK-OFF OR R. ENG. AUTO RESTART SWITCH-OPEN OR R. ENG. CUTOFF SWITCH-OPEN
231	KKL 231 = KKS 131 • KKS 135 + KKS 132 • KKS 136	131 132 135 136	231	2	ESS. NO. 2 BUS	IWSFD FIG. 38 ZONE 10C, 8A, 5B, 4A, 11A	EXTERNAL AIR START ENABLED (SHORT) = L. ENG.-CRANK AND L. ENG. CUTOFF SWITCH CLOSED OR R. ENG.-CRANK AND R. ENG. CUTOFF SWITCH CLOSED
232	KEL 232 = GDS 002 • GDS 102 • KKS 131 + KKS 135	002 102 131 135	232	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 8B, 3A NAVAIR 01-F14AAA-2-2-6 01400 FIGURE 2	L. ENG. EJECTOR REGULATING SHUTOFF VALVE- ENABLED (28VDC) = LEFT AND RIGHT MLG WEIGHT ON WHEELS AND L. ENG. CRANK-OFF OR L. ENG. CUTOFF SWITCH-OPEN
233	KEL 233 = GDS 002 •GDS 102 • KKS 132 +KKS 136	002 102 132 136	233	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 5C, 3A NAVAIR-01-F14AAA-2-2-6 01400 FIGURE 2	R. ENG. EJECTOR REGULATING SHUTOFF VALVE-ENABLED (28VDC) = LEFT AND RIGHT MLG WEIGHT ON WHEELS AND R. ENG. CRANK-OFF OR R. ENG. CUTOFF SWITCH-OPEN
234	EJL 234 = GDS 002 • GDS 102 • EJS 161	002 102 161	234	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 5A, 3A NAVAIR-01-F14AAA-2-2-6 00800 FIGURE 2	R. ENG. IDLE EXHAUST NOZZLE SOLENOID ENERGIZED (OPEN, 28VDC) = LEFT AND RIGHT MLG WEIGHT ON WHEELS AND RIGHT ENG. EXHAUST NOZZLE SOLENOID SWITCH-CLOSED (IDLE)
235	EJL 235 = GDS 002 • GDS 102 • EJS 102	002 102 162	235	2	ESS. NO. 2 BUS	IWSFD FIG. 40 ZONE 5A, 3A, NAVAIR-01-F14AAA-2-2-6 0800 FIGURE 2	L. ENG. IDLE EXHAUST NOZZLE SOLENOID ENERGIZED (OPEN, 28VDC) = LEFT AND RIGHT MLG WEIGHT ON WHEELS AND LEFT ENG. EXHAUST NOZZLE SOLENOID SWITCH-CLOSED (IDLE)

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 41 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
500	Solenoid Driver	V = + 28 VDC	Refuel probe solenoid selector valve (62L8) - SOL-A (ext all)				P/O Refuel Probe S4 - Fuel mgt panel (707A1) P/O K8 Dump Relay - Left glove relay box (773A1) CB2 (7.5A) fuel mgt panel - 2DC Ess circuit breaker panel (36A3)	04Q16	QAL500	IWSFD Fig. 41 Zone 8C, 3A, 2B, 1B	500
501	Solenoid Driver	V = +28 VDC	Refuel Probe solenoid selector valve (62L8) SOL-A (Ext-Fus)				P/O Refuel probe S4 - Fuel Mgt panel *707A1) CB6 (7.5A) Fuel P/motive flow ISOL V-2 DC ess circuit breaker panel (36A3)	04Q17	QAL501	IWSFD Fig. 41 Zone 8C, 3A, 1A	501
502	Solenoid Driver	V = +28 VDC	Refuel Probe solenoid selector valve (62L8) - SOL-B				P/O Probe door switch (62S1) P/O Refuel Probe S4 - fuel mgt panel (707A1) CB6 (7.5A) fuel P/motive flow ISOL V-2 DC ess circuit breaker panel (36A3)	04Q18	QAL 502	IWSFD Fig. 41 Zone 8C, 8B, 3A, 1A	502
503	Solenoid Driver	V = +28 VDC	Refuel Probe solenoid selector valve (62L8) - SOL-C				P/O K1 MLG handle C relay - left glove relay box (773A1)	04Q19	QAL503	IWSFD Fig. 41 Zone 8C, 2A, 1A	503
504	Lamp Driver	V = +28 VDC	Master Test Panel (734A1) - GO/NO GO lamps P.O Pilot caution advisory indicator (69A1)				P/O Master Test Panel (734A1) CB11 (3A) Master Test - 10 DC main circuit breaker panel (36A4)	01D14	MJL 504	IWSFD Fig. 41 zone 2C, 1C	504

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 41 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
500	QAL500 = QES173 • [QAS165 • $\overline{GDS002}$ + $\overline{\overline{GDS102}}$ • $\overline{EPS163}$]	002 102 163 165 173	500	1	ESS. No. 1 bus	IWSFD Fig. 41 Zone 8C, 3A, 2B, 1B	Refuel probe solenoid selector valve (62L8) - SOL-A (ext all) = refuel probe switch S4-all/extd AND Dump - not on AND left AND right WOW - not AND combined system pressure - > 450 psi not AND 28VDC Ess DC No. 1 & 2 bus on.
501	QAL501 = QES 172	172	501	1	ESS. No. 1 Bus	IWSFD Fig. 41 Zone 8C, 3A, 1A	Refuel probe solenoid selector valve (62L8) - SOL A (ext-fus) = refuel probe switch S4 - fus/extd AND 28VDC No. 1 & 2 bus ON.
502	QAL502 = QES120 • • [$\overline{(QES172)}$+$\overline{(QES173)}$]	120 172 173	502	1	ESS. No. 1 Bus	IWSFD Fig. 41 Zone 8C, 8B, 3A, 1A	Refuel probe solenoid selector valve (62L8) - SOL B = inflight refueling probe door - open AND refuel probe - fus/extd not AND refuel probe - all/extd not AND 28VDC ESS DC No. 1 & 2 bus on
503	QAL503 = $\overline{GDS052}$	052	503	1	ESS. No. 1 Bus	IWSFD Fig. 41 Zone 8C, 2A, 1A	Refuel probe solenoi selector valve (62L8) - SOL C = Landing Gear - up AND 28VDC ESS DC No. 1 & 2 bus on
504	MJL 504 = LAS073 • MJS068	068 073	504	3	L. Main Bus	IWSFD Fig. 41 Zone 2C, 1C	Master test panel (734A1) GO/NO GO lamps on - lamp test position AND test selector depressed AND 28VDC L main bus on

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 42 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
164	Speed brake - retracted	CDS164	Speed Brake switch (78S1) P/O Speed Brake control system	Aft FS750	Limit switch	Retracted = switched 28VDC Open = "Open"	Fuel dump solenoid shut-off pilot valve (fuel cell No. 5) (62L2)	Speed Brake switch (78S1)	06P36	IWSFD Fig. 42 Zone 7A	237	Solid state
165	Dump - on	QAS165	Fuel Management Panel (707A1)	Pilots left vertical console FS225	Toggle switch (SPST)	Dump-on = switched 28VDC Off = open	Fuel Dump Solenoid shut-off pilot valve (Fuel cell No. 5) (62L2)	Dump-switch	01P46	IWSFD Fig. 42 Zone 5A	237 242 244 277 243 500	Solid state
166	Fuel Feed - Aft	QAS166	Fuel Management Panel (707A1)	Pilots left vertical console FS225	Toggle switch DPDTCO)	Aft = switched 28VDC Norm = open	a) Feed tank interconnect solenoid valve (fuel cell No. 3) (62L5) b) K31 feed tank interlock relay (left glove relay box 773A1)	Fuel feed - S2 switch	01P47	IWSFD Fig. 42 Zone 5A	238 239 240 241 242	Solid state
167	Fuel Feed - Fwd	QAS167	Fuel Management Panel (707A1)	Pilots left vertical console FS225	Toggle switch (DPDTCO)	Fwd - switched 28 VDC Norm - open	Same as item 166	Fuel Feed - S2 switch	01P48	IWSFD Fig. 42 Zone 5A	238 239 240 241 242	Solid state
168	Fuel Cell 2 or 5 - Dry	EJS168	Electronic control amplifier (33A18)	Right side FS400	N/A (relay contacts)	Dry = switched 28VDC Wet = Open	K61 tank interconnect override relay (L. glove relay box 773A1)	N/A	04P17	IWSFD Fig. 42 Zone 14B	238 239 240 241 242 243	Resistor Divider Adapter

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 42 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
169	Right fuel pressure switch - closed	ERS169	Right fuel pressure switch (62S4)	FS600	Pressure switch	Closed = switched 28VDC Open = "open"	K80 - Cross feed pwr relay K81 - Aft Forward fuel feed relay (L. glove relay Box 773A1) R. Fuel press lamp P/O Pilot caution advisory indicator panel (69A1)	Right fuel pressure switch (62S4)	07P37	IWSPD Fig. 42 Zone 1B	240 241 243 249 251	Solid state
170	Left fuel pressure switch - closed	ERS170	Left fuel pressure switch (62S3)	FS600	Pressure switch	Closed = switched 28VDC Open = "open"	K80 - cross feed pwr relay K81 - Aft forward feed relay (Left glove relay gox 773A1) L. Fuel press lamp P/O pilot caution advisory indicator panel (69A1)	Left fuel pressure switch (62S3)	06P37	IWSPD Fig. 42 Zone 1B	240 241 243 250 251	Solid state

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 42 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
171	Wing/Ext trans-off	QES171	Wing external transfer switch S3 P/O fuel management panel (707A1)	Pilot's left vertical console FS225	Toggle switch (DPDTCO-manual - solenoid driven)	Off = switched 28VDC Off Not = open	Crossfeed solenoid shutoff pilot valve (62L10) Wing motive flow solenoid transfer valve (cell No. 2) (62L1)	Wing external transfer switch S3	01P49	IWSFD Fig. 42 Zone 5B	244 277	Solid state
172	Refuel probe Fus/Extd	QES172	Fuel management panel (707A1) switch S4	Pilot's left vertical console FS225	Toggle switch (DPDT)	Fus/Extd = Switched 28VDC Fus/Extd Not = Open	N/A	Refuel probe switch-S4	01P50	IWSFD Fig. 42 Zone 5C	244 277 501 502	Solid state
173	Refuel probe - All/extd	QES173	Fuel management panel (707A1) switch S4	Pilot's left vertical console FS225	Toggle switch (DPDT)	All/extd = switched 28VDC All/extd not = Open	See Item 171	Refuel probe switch - S4	01P51	IWSFD Fig. 42 Zone 5C	277 500 502	Solid state
174	Master Test - Flt. Gr. Up.	DUS174	Master Test Panel (734A1)	Pilot's Right side console FS225	12 position rotary switch with-Depress test function	Flt Gr Up = switched 28VDC Flt Gr Up Not = Open	K26 - External tank test relay		02P45	IWSFD Fig. 42 Zone 1B	244 259 260 261 243 562 578 579	
175	Right fuel low caution advisory	EJS175	R. electronic control amplifier (33A2)	Right side FS395	Relay contact switching	Low = switched 28VDC (No. 2 cell & R. box beam cell - Low) Low Not = Open	a) Pilot's - R fuel low lamp P/O Pilots caution advisory indicator panel (69A1)	N/A	04P18	IWSFD Fig. 42 Zone 13B	246 248	Resistor Adapter Divider

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 42 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
175 (cont'd)							b) NFO - Fuel low P/O NFO's caution advisory indicator panel (69A2A1)					
176	Left Fuel Low caution advisory	EJS176	L. electronic control amplifier (33A4)	Right side FS290	Relay contact switching	Low = switched 28VDC (No. 5 cell and L. box beam cell - low) Low Not = open	a) Pilot's - L Fuel low lamp P/O Pilots caution advisory indicator panel (69A1) b) NFO - fuel low P/O NFO's caution advisory indicator panel (69A2A1)	N/A	04P19	IWSPD Fig. 4 Zone 13B	246 247	Resistor Divider Adapter
177	Bingo	EJS177	Pilot fuel quantity Indicator (33M1)	Pilots Right knee panel FS225	Relay contact switching	Bingo = switched 28VDC Bingo Not = open	Pilot's bingo - caution lamp P/O pilots caution advisory indicator panel (69A1)	N/A	02P46	IWSPD Fig. 4 Zone 16	252	Resistor Divider Adapter
178	Quantity select - Ext	EJS178	Quantity select switch - S5 P/O Fuel management panel (707A1)	Pilot's left vertical console FS225	Rocker switch (DPDTCO spring loaded center return)	Ext = Switched 28VDC Ext. Not = Open	Signal data converter (33A1)	Quantity select switch - S5	02P47	IWSPD Fig. 42 Zone 5C	257 258	Solid state

TABLE I F-14 SOGTEL SIGNAL TRANSDUCERS

FIGURE 42 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
179	Quantity Select - wing	EJS179	Quantity select switch - S5 P/O Fuel Management Panel (707A1)	Pilot's left vertical consoles FS225	Rocker Switch (DPDTCO spring loaded center return)	Wing = switched 28VDC Wing not = open	Signal data converter (33A1)	Quantity select switch - S5	01P52	IWSFD Fig. 42 Zone 5C	256 257	Solid state
188	Wing/Ext Trans-Oride	QAS188	Wing external transfer Switch - S3 P/O Fuel management panel (707A1)	Pilot's left vertical console FS225	Toggle switch (DPDTCO Manual solenoid driven)	Oride - switched 28VDC Oride Not = Open	Wing motive flow solenoid transfer valve (cell No. 2) (62L1)	Wing external transfer switch - S3	01P53	IWSFD Fig. 42 Zone 5B	277 244	Solid state
189	Wing/Ext Trans - Auto	QAS189	Wing External Transfer Switch -S3 P/O Fuel Management Panel (707A1)	Pilot's left vertical console FS225	Toggle switch (DPDTCO manual solenoid driven)	Auto - Switched 28VDC Auto Not = open	Wing motive flow solenoid transfer valve (cell No. 2) (62L1)	Wing external transfer switch - S3	01P54	IWSFD Fig. 42 Zone 5B	277 244	Solid state
190	L and R Wing Low Level Sensors - Wet	EJS190	Electronic control amplifier (62A10)	Right side FS300	Relay contacts	Wet = Switched 28VDC Dry - open	K83 - R & L Wing transfer relay (L. glove relay box 773A1)	N/A	04P20	IWSFD Fig. 42 Zone 14C	277	Resistor Divider Adapter

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
236	AC - 1 Pole	V=115VAC ØB I = 5A	Signal Data Converter (33A1)	100%			CB14(5A Fuel Qty Ind AC (36A2)	05Q02	EJL236	IWSFD Fig. 42 Zone 15A, 1A	236
237	DC - 1 Pole	V=28VDC	Fuel Dump Solenoid Shutoff pilot valve (fuel cell No. 5) (62L2)				CB3(7.5A) Fuel/Feed Dump (36A3) P/O K20 MLG safety M P/O K88 Nose Kneel (Left glove relay box 773A1)	08Q50	QAL237	IWSFD Fig. 42 Zone 7B, 7A 4A, 5A, A1	237
238	DC - 1 Pole	V=28VDC	Feed Tank Interconnect Solenoid Valve (Fuel Cell No. 3) (62L5)				CB3(7.5) Fuel/Feed Dump (36A3) P/O K61 Tank Interconnect Override Relay (Left glove relay box 773A1)	08Q51	QAL 238	IWSFD Fig. 42 Zone 6A, 6B 3A, 1B	238
239	DC - 1 Pole	V=28VDC I=5A	a) Right vent solenoid valve (62L11) b) Left vent solenoid valve (62L12)				CB56 (5A) Fuel vent valve (36A2) P/O K31 Feed Tank Interlock relay (left glove relay box 773A1)	08Q52	QAL 239	IWSFD Fig. 42 Zone 7C, 7B, 3A, 1C	239
240	DC - 1 Pole	V=28VDC	Fuselage motive flow solenoid transfer valve forward (cell No. 2) (62L4)				CB3(7.5A) Fuel feed dump (36A3) P/O K31 - Feed tank interlock relay P/O K81 - Aft forward fuel feed relay P/O K80 - Cross feed power relay (L. glove relay box 773A1) CB8 (3A) Fuel pressure advisory (36A2)	08Q53	QAL240	IWSFD Fig. 42 Zone 6B, 3B 3A, 2A, 1B 1C	240

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
241	DC - 1 Pole	V=28VDC	Fuselage motive flow solenoid transfer valve aft (cell No. 4) (6213)				CB3 (7.5A) Fuel feed Dump (36A3) P/O K31 - Feed tank interlock relay P/O K81 - Aft forward fuel feed relay P/O K80 - Crossfeed power relay (L. glove relay box 773A1) CB8 (3A) Fuel pressure advisory (36A2)	08Q54	QAL241	IWSFD Fig. 42 Zone 6B, 5B 3A, 2A, 1B, 1C	241
242	DC - 1 Pole	V=28VDC	Motive flow isolation Valve (fuel cell No. 2) (6219)				P/O K31 - Feed tank interlock relay (L. glove relay box 773A1) CB6 (7.5A) Fuel P/ Motive Flow Isolation V (36A3) P/O K61 - Tank Interconnect override relay P/O K8 - Dump relay (L. glove relay box 773A1)	08Q55	QAL242	IWSFD Fig. 42 Zone 3C, 3A 1B	242
243	DC - 1 Pole	V=28VDC	Auxiliary fuel tank Pressure regulator (6216)				CB2 (7.5A) Fuel management panel (36A3) P/O K80 - Cross feed Pwr relay P/O K61 - Tank interconnect override relay (L. glove relay box 773A1)	09Q12	QAL243	IWSFD Fig. 42 Zone 3C, 3A, 2A, 1B	243

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
243 (cont'd)							P/O K26 Ext Tank Test Relay - L. Glove relay box (773A1) P/O K8 Dump Relay - L. Glove relay box (773A1)			IWSFD Fig. 41 Zone 7B, 6B, 2B, 1B	
244	DC - 1 Pole	V=28VDC	Crossfeed Solenoid Shutoff Pilot Valve (62L10)				P/O K8 - Dump relay (L. glove relay box 773A1) CB3 (7.5A) Fuel Management Panel (36A3) P/O K29 - MLG Safety N (R. glove relay box 772A1) P/O K8 - Dump relay (L. glove relay box 773A1)	08Q56	QAL244	IWSFD Fig. 42 Zone 3B, 2A, 5B, 5C, 3A, 1B	244
245	DC - 1 Pole	V=28VDC I=5A	a) R. Electronic control amplifier (33A2) b) L. Electronic control amplifier (33A4)	100%			CB14 (5A) Fuel low caution (36A2)	05Q03	EJL245	IWSFD Fig. 42 Zone 13, 1C	245
246	Lamp Driver	V=28VDC	NFO's - Fuel low lamp P/O NFO's caution advisory indicator panel (69A2A1)				CB13 (5A) Oxygen/bingo caution (36A2)	01D15	EJL246	IWSFD Fig. 42 Zone 1C, 13 16C	246

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
247	Lamp Driver	V=28VDC	Pilot's - L Fuel Low - Lamp P/O Pilot's caution advisory indicator panel (69A1)				CB13 (5A) Oxygen/bingo caution (36A2)	01D16	EJL247	IWSFD Fig. 42 Zone 1C, 13 16A	247
248	Lamp Driver	V=28VDC	Pilot's - R Fuel Low - Lamp P/O Pilot's caution advisory indicator panel (69A1)				CB13 (5A) Oxygen/bingo caution (36A2)	01D17	EJL248	IWSFD Fig. 42 Zone 1C, 13, 16A	248
249	Lamp Driver	V=28VDC	Pilot's - R. Fuel press - Lamp P/O Pilot's caution advisory indicator panel (69A1)				CB45 (3A) R. Oil pressure advisoty (36A2)	01D18	ERL249	IWSFD Fig. 42 Zone 1, 16	249
250	Lamp Driver	V=28VDC	Pilots - L. Fuel press - Lamp P/O Pilot's caution advisory indicator panel (69A1)				CB8 (3A) L. Oil pressure advisory (36A2)	01D19	ERL250	IWSFD Fig. 42 Zone 1, 16	250
251	Lamp Driver	V=28VDC	Pilot's - Fuel Press - lamp P/O Pilots caution advisory indicator panel (69A1)				CB45 (3A) R. Fuel pressure advisory (36A2) CB8 (3A) L. Fuel pressure advisory (36A2)	01D20	ERL251	IWSFD Fig. 42 Zone 1, 16	251
252	Lamp Driver	V=28VDC	Pilot's - Bingo - Lamp P/O Pilot's caution advisory indicator panel (69A1)				CB13 (5A) oxygen/bingo caution (36A2)	01D21	EJL252	IWSFD Fig. 42 Zone 2C, 16A	252

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
253	DC - 1 Pole	V=28VDC	Electronic Control Amplifier (62A10)	100%			CB2 (7.5A) Fuel Management Panel (36A3)	05Q04	EJL 253	IWSFD Fig. 42 Zone 13C, 1B	253
254	DC - 1 Pole	V=28VDC	Electronic Control Amplifier (33A1B)	100%			CB53(5A) Fuel Transfer Override (36A2)	05Q05	EJL254	IWSFD Fig. 42 Zone 13A, 1B	254
255	DC - 1 Pole	V=28VDC	Signal Data Converter (33A1) (28VDC Bit Test)	100%			CB25 (3A) Fuel Quantity Indicator DC (36A2)	05Q06	EJL255	IWSFD Fig. 42 Zone 14B, 1C	255
256	Enable Signal	V=28VDC	Signal Data Converter (33A1) (WG Select switch)				CB25 (3A) Fuel Quantity Indicator DC (36A2)	06D06	EJL256	IWSFD Fig. 42 Zone 14A, 5C 1B	256
257	Enable Signal	V=28VDC	Signal Data Converter (33A1) (Feed Select Switch)				CB25 (3A) Fuel Quantity Indicator DC (36A2)	06D07	EJL257	IWSFD Fig. 42 Zone 14A, 5C 1B	257
258	Enable Signal	V=28VDC	Signal Data Converter (33A1) (Feed Select switch)				CB25 (3A) Fuel Quantity Indicator DC (36A2)	06D08	EJL258	IWSFD Fig. 42 Zone 14A, 5C 1B	258
259	DC - 1 Pole	V=28VDC	Signal Data Converter (33A1) (28VDC instrument test fuel)				CB11 (3A) Master Test (36A4)	05Q07	EJL259	IWSFD Fig. 42 Zone 14B, 2C 1A	259
260	GND/OPEN Driver		Left electronic control amplifier (33A4) (fuel low level test -GND = Test Enable)				CB11 (3A) Master Test (36A4) P/O K43 - Fuel low level test relay (L. Glove relay box 773A1)	06D09	EJS260	IWSFD Fig. 42 Zone 13B, 3A 3C, 1A	260
261	GND/OPEN Driver		Right electronic control amplifier (33A2) (fuel low level test - GND = test enable				CB11 (3A Master Test (36A4) P/O K43 - fuel low level test relay (L. glove relay box 773A1)	06D10	EJS261	IWSFD Fig.42 Zone 13A, 3A 3C, 1A	261

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 42 SHEET 6

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
277	DC - 1 Pole	V=28VDC	Wing motive flow solenoid transfer valve				CB2 (7.5A) Fuel management Panel (36A3) P/O KB - Dump relay KB3 - R/L Wing transfer relay (Left glove relay box 773A1)	08Q57	QA1277	IWSFD Fig. 42 Zone 1B, 4A 5B, 5C, 6C 14A	277

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 42 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
236	EAI236	N/A	236	2	Instrument Bus	IWSFD Fig. 42 Zone 15A, 1A	Signal data converter 115VAC ϕB = 115VAC ϕB Inst. Bus energized
237	QAI237 = QAS165 • (GDS002 + $\overline{GDS102}$) • (CDS16A + $\overline{EPS163}$)	002 102 163 164 165	237	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 7B, 7A, 5A 4A, 1B	Fuel dump solenoid pilot valve - energized (28VDC) = Dump-on AND left OR right MLG weight not on wheels AND speed brake-retracted OR combined system pressure - < 450 psi
238	QAI238 = QAS166 + QAS167 + EJS168	166 167 168	238	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 6A, 5B 14B, 3A, 1B	Feed tank interconnect solenoid valve (fuel cell No. 3) - energized (28VDC) = fuel feed - Aft OR FWD OR fuel cell 2 or 5 - Dry
239	QAI239 = QAS166 + QAS167 + EJS168	166 167 168	239	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 7C, 7B, 3A 5B, 14B	Right and left vent solenoid valves - energized (28VDC) = fuel feed - Aft OR FWD OR fuel cell 2 or 5 Dry
240	QAI240 = QAS166 + [$\overline{QAS166}$ • $\overline{QAS167}$ • $\overline{EJS168}$ • (ERS169 + ERS170)]	166 167 168 169 170	240	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 6B, 5B, 3A, 2A, 1B	Fuselage motive flow solenoid transfer valve forward (cell No. 2) - enertized = fuel feed-aft OR fuel feed-normal (aft-off and FWD-off) AND fuel cell 2 and 5-Wet AND right OR left fuel pressure switch - closed
241	QAI241 = QAS167 + $\overline{QAS167}$ • $\overline{QAS166}$ • $\overline{EJS168}$ • $\overline{ERS169}$ • ERS170	166 167 168 169 170	241	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 6B, 5B, 3A 2A, 1B, 1C	Fuselage motive flow solenoid transfer valve aft (cell No. 5) - energized (closed) = fuel feed - FWD OF fuel feed - normal (FWD-off and Aft - off) AND fuel cell 2 and 5 - Wet AND right fuel pressure switch - open AND left fuel pressure switch - closed
242	QAI242 = QAS166 +QAS167 +EJS168 +(QAS165 • $\overline{EPS163}$ • [$\overline{GDS002}$ + $\overline{GDS102}$])	002 102 166 167 168 163 165	242	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 3C, 3A, 1B	Motive flow isolation valve solenoid (fuel cell No. 2) - energized (closed) = fuel feed - Aft OR FWD OR fuel cell 2 or 5 - dry OR dump-on AND combined system pressure - < 450 psi AND left OR right MLG - weight on wheels not

TABLE III F-14 SCSTEL BOOLEAN EQUATIONS

FIGURE 42 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
243	QAL243 = ERS169 +ERS170 + EJS 160 + { $\overline{QAS165}$ +EPS163} +GDS002 • GDS102) •DUS174 • MJS068	168 169 170 165 163 002 102 174 068	243	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 3C, 3A, 2A, 1B	Auxiliary fuel tank press regulator - Energized (28VDC) = right OR left fuel pressure switch - closed OR fuel cell 2 or 5 - dry OR (dump-off OR comb sys pressure - > 450 PSI OR L AND R - WOW) AND Master test - flt gr up AND test selector - depressed
244	QAL244 = [$\overline{QAS165}$ + EPS163 + (GDS002 • GDS102)] • [[($\overline{DUS174}$ + $\overline{MJS068}$ + $\overline{GDS002}$ + $\overline{GDS102}$) • (GDS052 •QAS189 + QAS188) +(QES171 • QES172)]	002 052 068 102 163 165 171 172 174 188 189	244	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 3B, 2A, 5B, 5C, 3A, 1B	Crossfeed solenoid shutoff pilot valve - energized (28VDC) = [dump-off OR combined sys. press - < 450 psi OR [Left AND right MLG - weight on wheels)] AND [[(master test - flt gr up not OR master test - not depressed OR left OR right MLG - weight on wheels not) AND (landing gear handle - down AND wing/ext trans-auto) OR wing/ext trans-oride] OR (wing/ext trans-off AND refuel probe - fus/extd)]
245	EJL245	N/A	245	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 13, 1C	28VDC fuel low caution to the R. and L electronic control amplifier's (33A2 & 33A4) = 28VDC ESS. No. 2 Bus energized
246	EJL246 = EJS175 + EJS176	175 176	246	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1C, 13 16C	NFO's - low fuel - caution lamp on (28VDC) = cell No. 2 and R. box beam cell - low AND cell No. 5 and L. box beam cell - low
247	EJL247 = EJS176	176	247	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1C, 13 16A	Pilot's - L. fuel low - caution lamp on (28VDC) = cell No. 5 and L. box beam cell - low
248	EJL248 = EJS175	175	248	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1C, 13 16A	Pilot's - R. fuel low - caution lamp on (28VDC) = cell No. 2 and R. box beam cell - low
249	ERL249 = ERS169	169	249	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1, 16	Pilot's - R. fuel press - caution lamp on (28VDC) = R. fuel pressure switch - closed

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 42 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
250	ERL250 = ERS170	170	250	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1, 16	Pilot's - L. Fuel. Press - caution lamp on (28VDC) = L. fuel pressure switch - closed
251	ERL251 = ERS169 + ERS170	169 170	251	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 1, 16	Pilot's - fuel press. - caution lamp on (28VDC) = right OR left fuel pressure switch - closed
252	EJL252 = EJS177	177	252	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 16A, 1C	Pilot's - bingo - caution lamp on (28VDC) = bingo
253	EJL253	N/A	253	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 13C, 1B	28VDC to the electronic control amplifier (62A10) = 28VDC ESS. Bus No. 2 energized
254	EJL254	N/A	254	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 13A, 1B	28VDC to the electronic control amplifier (33A18) = 28VDC ESS. Bus No. 2 energized
255	EJL255	N/A	255	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 14B, 1C	28VDC to the signal data convwrter (28VDC Bit test) = 28VDC ESS. No. 2 bus energized
256	EJL256 = EJS179	179	256	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 14A, 5C 1B	Wing select switch (28VDC) = quantity select - wing
257	EJL257 = EJS178 + EJS 179	178 179	257	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 14A, 5C 1B	Feed select switch (28VDC) = quantity select - ext OR wing
258	EJL258 = EJS178	178	258	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone 14A, 5C 1B	External select switch (28VDC) = quantity select - ext
259	EJL259 = DUS174 • MJS068 • GDS002 • GDS102	002 068 102 174	259	3	Left Main Bus	IWSFD Fig. 42 Zone 14B, 2C 1A	Instrument test fuel 28VDC to the signal data converter = master test - test selector in-flt gr up - position AND test selector depressed AND left AND right MLG weight on wheels
260	EJS260 = DUS174 • MJS068 • GDS002 • GDS102	002 068 102 174	260	3	Left Main Bus	IWSFD Fig. 42 Zone 13B, 2C, 2A, 1A	Left electronic control amplifier - fuel low level test - enabled (GND) = master test -test selector - flt gr up position AND test selector - depressed AND left AND right MLG weight on wheels

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 42 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
261	EJS261 = DUS174 • MJS068 • GDS002 • GDS102	002 068 102 174	261	3	Left Main Bus	IWSFD Fig. 42 Zone 13A, 2C 2A, 1A	Right electronic control amplifier - fuel low level test - enabled (GND) = master test - test selector flt gr up - position AND test selector - depressed AND left AND right MLG weight on wheels
277	QAI277 = [$\overline{QAS165}$ + $\overline{EFS163}$ + (GDS002 • GDS102)] •[QAS189 • QES173 • $\overline{EJS190}$) + QAS188 +(QES171 • QES172)]	002 102 163 165 171 172 173 188 189 190	277	2	ESS. No. 2 Bus	IWSFD Fig. 42 Zone	Wing motive flow solenoid transfer valve (cell No. 2) - energized (shutoff) = [dump-off OR combined sys. press. - < 450 PSI OR left AND right MLG - weight on wheels] AND [(wing/ext. trans. - auto AND refuel probe - ext/$\overline{all}$ AND L and R wing low level sensors - wet) OR wing/ext trans. - oride OR (wing/ext. trans-off AND refuel probe - fus/extd)]

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 43 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
550	BLEED MANIFOLD > 475°F	HCS550	BLEED MANIFOLD 475° OVERTEMP. SWITCH (42A7)	STARBOARD FS426 BLO WL150	TEMPERATURE SWITCH	OPEN/+28V	BLEED MANIFOLD 400°F MODULATING VALVE (42L9)	N/A	04P21	IWSFD FIG. 43 ZONE 37B NAVAIR 01-F14AAA-2-2-2 005 FIG 2	563	RESISTOR DIVIDER ADAPTER
551	WSHLD HEAT-ON	HKS551	SYSTEM TEST PANEL (790A1)	NFO LEFT KNEE PANEL FS300	12 POS ROTARY	OPEN/+28V	WINDSHIELD POWER CONTR. (40A1)	52-SYS TEST PNL (790A1)	03P18	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG 4	564	SOLID STATE
552	FIRE SHORT-ON	FPS552	SYSTEM TEST PANEL (790A1)	NFO LEFT KNEE PANEL FS300	12 POS ROTARY	OPEN/28V	R & L ALARM CONTROLS (71A1, 71A2)	52- SYS TEST PNL (790A1)	03P19	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG 5	565	SOLID STATE
553	BLANK PULSE-ON	SMS553	SYSTEM TEST PANEL (790A1)	NFO LEFT KNEE PANEL FS300	12 POSITION ROTARY	OPEN/28V	RADAR WARNING SYSTEM	52-SYS TEST PNL (790A1)	03P20	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG 6	566	SOLID STATE
554	FIRE DET-ON	WGS554	MASTER TEST PANEL (734A1)	PILOTS RIGHT SIDE CONSOLE FS225	12 POSITION ROTARY	OPEN/+28V	L & R ALARM CONTROLS (71A1, 71A2)	52 MASTER TEST (734A1)	02P48	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG 2	592	SOLID STATE
555	L. ALARM LAMP ON	WGS555	LEFT ALARM CONTROL (71A2)	RIGHT SIDE FS220	N/A	OPEN/+28V	L FIRE LAMP P/O AIR COMBAT MANEUVER PANEL (702A1)	N/A	07D26	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG 2	569	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 43 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
556	R ALARM LAMP ON	WGS556	RIGHT ALARM CONTROL (71A1)	RIGHT SIDE FS230	N/A	OPEN/+28V	R FIRE LAMP P/O AIR COMBAT MANEUVER PNL (702A1)	N/A	07D27		570	EXTERNAL SIGNAL ADAPTER
557	SPD BRAKES-HOLD	NAS557	THROTTLE QUADRANT (711A1)	PILOTS LEFT SIDE CONSOLE FS225	2P3T SWITCH	HOLD = 28VDC $\overline{\text{HOLD}}$ = OPEN	SPEED BRAKE CONTROL VALVE (54L1)	N/A	01P55	IWSFD FIG 43 ZONE 36C NAVAIR 01-F14AAA-2-2-4 006 FIG 1	573	RESISTOR DIVIDER ADAPTER
558	SPD BRAKES - EXT	NAS558	THROTTLE QUADRANT (711A1)	PILOTS LEFT SIDE CONSOLE FS225	2P3T SWITCH	EXT = 28VDC $\overline{\text{EXT}}$ = OPEN	SPEED BRAKE CONTROL VALVE (54L1)	N/A	01P56	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-4 006 FIG.1	573 574	RESISTOR DIVIDER ADAPTER
559	LWR SPD BRAKE-IN	NAS559	LOWER SPEED BRAKE POSITION SWITCH (78S1)	AFT FS740	SPDT LIMIT SWITCH	$\overline{\text{IN}}$ = 28VDC IN = OPEN	WHEELS-FLAPS POS IND (78M1)FLAG 9	LOWER SPEED BRAKE POS SW (78S1)	06P38	IWSFD FIG. 43 ZONE 40B NAVAIR 01-F14AAA-2-2-4 006 FIG 1	575 576 577	SOLID STATE
560	UPPER SPD BRAKE-OTHER	NAS560	UPPER SPEED BRAKE POSITION SWITCH (78S2)	AFT FS675	SPDT LIMIT SWITCH	$\overline{\text{OTHER}}$ = 28VDC OTHER = OPEN	WHEEL - FLAPS POS IND (78M1)FLAG 9	UPPER SPEED BRAKE POS SW (78S2)	07P38	IWSFD. FIG. 43 NAVAIR 01-F14AAA-2-2-4 006 FIG. 1	567 577	SOLID STATE
561	MASTER TEST - INST	DUS 561	MASTER TEST PANEL (734A1)	PILOT'S SIDE CONSOLE FS225	12 POSITION ROTARY PUSH TO TEST	INST = 28VDC $\overline{\text{INST}}$ = OPEN	LIQUID QUALITY INDICATOR (41M1)	52 - P/O MASTER TEST PANEL (734A1)	02P49	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-4 D19 FIG 2	562	SOLID STATE
562	NO. 1 & NO 2 AC & DC RELAYS ENERGIZED	MJS562	AC PWR SWITCH ASSEM (67A2) DC PWR SWITCH ASSEM (67A3)	PORT FS370 PORT FS370	RELAY CONTACTS	28VDC/OPEN	K23 ENERG GEN TEST NO. 2 RELAY (RIGHT GLOVE RELAY BOX 772A1)	N/A	03P21	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-9 D11 FIG 9	528 529	RESISTOR DIVIDER ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 43 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
563	OBC	MJS563	MASTER TEST PANEL (734A1)	PILOTS RIGHT SIDE CONSOLE FS225	12 POSITION ROTORY SWITCH WITH PUSH-TEST	OPEN/+28VDC	SEE REF DWGS	52 P/O MASTER TEST PANEL (734A1)	02P50	NAVAIR 01-F14AAA-2-2-9 011 FIG 56, 7, 8	582 583 584	SOLID STATE
564	EMERG GEN	MJS564	MASTER TEST PANEL (734A1)	PILOTS RIGHT SIDE CONSOLE FS225	12 POSITION ROTARY SWITCH WITH PUSH-TEST	OPEN/28VDC	K24 EMER GEN TEST NO. 1 RGRB 772A1	52 P/O MASTER TEST PANEL (734A1)	02P51	NAVAIR 01-F14AAA-2-2-9 011 FIG 9	578 579 585	SOLID STATE
565	MACH LEV	MJS565	MASTER TEST PANEL (734A1)	PILOT'S RIGHT SIDE CONSOLE FS225	12 POSITION ROTARY SWITCH WITH PUSH-TEST	OPEN/28VDC	TEST INITIATE P/O MACH COVER CONTROL UNIT	52-P/O MASTER TEST PANEL (734A1)	02P52	NAVAIR 01-F14AAA-2-2-9 011 FIG 10	586 578 579	SOLID STATE
566	WGSWP	MJS566	MASTER TEST PANEL (734A1)	PILOT'S RIGHT SIDE CONSOLE FS225	12 POSITION ROTARY SWITCH WITH PUSH-TEST	OPEN/28VDC	TEST SIGNAL AIR DATA COMP	52 - P/O MASTER TEST PANEL (734A1)	02P53	NAVAIR 01-F14AAA-2-2-9 011 FIG 11	587	SOLID STATE
567	TEST INITIATE ON	MJS567	ADC(0541)	FS400	ENABLE SIGNAL	OPEN/+28V	TEST SIGNAL ADC	N/A	05D28	NAVAIR 01-F14AAA-2-2-9 011 FIG 11	587	EXTERNAL SIGNAL ADAPTER
568	NFO SEAT HEIGHT - UP	WFS568	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	NFO EJECTION SEAT (38A2) FS300	1 PDT TOGGLE SWITCH	UP = SWITCHED 115VAC ØB OFF = OPEN	NFO EJECTION SEAT (38A2) M1 MOTOR	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	03P22	NAVAIR 01-F14AAA-2-2-3 00500 FIG 2	559	SOLID STATE
569	NFO SEAT HEIGHT DWN	WFS569	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	NFO EJECTION SEAT (38A2) FS300	1 PDT TOGGLE SWITCH	DWN = SWITCHED 115VAC ØB OFF = OPEN	NFO EJECTION SEAT (38A2) M1 MOTOR	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A2S1)	03P23	NAVAIR 01-F14AAA-2-2-3 00500 FIG.2	588	SOLID STATE
570	PILOT SEAT HEIGHT - UP	WFS570	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	PILOT EJECTION SEAT (38A1)	1 PDT TOGGLE SWITCH	UP = SWITCHED 115VAC ØB OFF = OPEN	PILOT EJECTION SEAT (38A1)	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	03P24	NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	589	SOLID STATE

TABLE I P-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 43 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
571	PILOT SEAT HEIGHT-DOWN	WFS571	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	PILOT EJECTION SEAT (38A1) FS240	1 PDT TOGGLE SWITCH	DWN=SWITCHED 115VAC ØB OFF = OPEN	PILOT EJECTION SEAT (38A1) M1 MOTOR	SEAT BUCKET HEIGHT ADJUSTMENT SWITCH (38A1S1)	03P25	NAVAIR 01-F14AAA-2-2-3 00500 FIG 2	590	SOLID STATE
572	EJECT MODE SELECTOR-PILOT	WFS572	EJECT MODE SELECTOR SWITCH (70S3) P/O EJECT CMD PANEL	MFO LEFT SIDE CONSOLE FS320	1 PDT HANDLE ACTUATED SWITCH	PILOT = SWITCHED 28VDC MCO = SWITCHED 28VDC	PILOT EJECT CMD INDICATOR (LANDING GEAR CONTROL PANEL)	N/A	03P26	NAVAIR 01-F14AAA-2-2-3 004 FIG2	560 591	RESISTOR DIVIDER ADAPTER
573	FIRE SHORT-SELECTED	WGS573	SYS. TEST-SYS PWR PANEL (790A1)	MFO LEFT KNEE PANEL FS300	9 POSITION ROTARY SWITCH	SWITCHED 28VDC	a) LEFT ALARM CONTROL (71A2) b) RIGHT ALARM CONTROL (71A1) (FIRE DETECTION SHORT TEST SIGNAL)	SYSTEM TST - SYSTEM PWR PANEL (790A1) S2 - ROTARY SWITCH	03P27	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	568	SOLID STATE
574	FAULT SIGNAL - LEFT	DUS574	MACH LEVER CONTROL UNIT (46A1)	PORT FS710	N/A	28VDC/OPEN	NO-GO LAMP P/O MASTER TEST PANEL (734A1)	N/A	05D29	NAVAIR 01-F14AAA-2-2-9 011 FIG. 10	579	EXTERNAL SIGNAL ADAPTER
575	FAULT SIGNAL-RIGHT	DUS575	MACH LEVER CONTROL UNIT (46A1)	PORT FS710	N/A	28VDC/OPEN	NO-GO LAMP P/O MASTER TEST PANEL (734A1)	N/A	05D30	NAVAIR 01-F14AAA-2-2-9 011 FIG 10	579	EXTERNAL SIGNAL ADAPTER
576	GO SIGNAL	DUS576	MACH LEVER CONTROL UNIT (46A1)	PORT FS710	N/A	28VDC/OPEN	GO LAMP P/O MASTER TEST PANEL (734A1)	N/A	05D31	NAVAIR 01-F14AAA-2-2-9 011 FIG. 10	578	EXTERNAL SIGNAL ADAPTER
577	AIR PRESS ≥10.5 PSIG	DES577	AUX FUEL TANK AIR PRESSURE SWITCH (62S5)	STARBOARD FS550	N/A	28VDC/OPEN	GO LAMP P/O MASTER TEST PANEL	N/A	07D28	NAVAIR 01-F14AAA-2-2-9 011 FIG. 10	578	EXTERNAL SIGNAL ADAPTER
578	AIR PRESS <6.5 PSIG	DES578	AUX FUEL TANK AIR PRESSURE SWITCH (62S5)	STARBOARD FS550	N/A	28VDC/OPEN	NO-GO LAND	N/A	07D29	NAVAIR 01-F14AAA-2-2-9 011 FIG. 10	579	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 43 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
277	INST - ON	XAS277	SYS TEST. SYS PWR PANEL-56 (790A1)	NFO LEFT KNEE PANEL FS300	DPDT TOGGLE SWITCH	ON = SWITCHED 115VAC/26VAC OFF = OPEN	115VAC & 26VAC INSTRUMENT BUS	INST SWITCH - 56 SYS TEST SYS PWR PANEL (790A1)	03P28	IWSFD FIG. 43 ZONE 16	580 581	SOLID STATE

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 43 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
559	AC - 1 POLE	V=115VAC ØB	NFO SEAT BUCKET HEIGHT ADJUSTMENT MOTOR M1 (38A2) VP PHASE				CB7-ACM LT/SEAT ADJ/STEADY POS LT P/O 7 AC R MAIN CIRCUIT BREAKER PANEL (35A1)	07Q21	WFL559	IWSFD FIG. 43 ZONE 18C NAVAIR 01-F14AAA-2-2-3 005 FIG. 2	559
560	LAMP DRIVER	V=28VDC	EJECT COMMAND INDICATOR (7OM1) PILOTS LANDING GEAR CONTROL PANEL				CB34-CAN/LAD CAUTION EJECT CMD IND P/O 8 DC ESS 2 CICT BREAKER PANEL (36A2)	01D22	WFL560	IWSFD FIG. 43 ZONE 38C NAVAIR 01-F14AAA-2-2-3 004 FIG. 2	560
561	AC - 1 POLE	V-115VAC ØA	LIQUID QUANTITY INDICATOR (41M1) (POWER SOURCE)	100%			CB13-OXY QTY IND P/O 5 AC ESS 2 ØA CKT BREAKER PANEL (35A2)	07Q22	XAL561	IWSFD FIG. 43 ZONE 25C NAVAIR 01-F14AAA-2-2-2 019 FIG. 2	561
562	RELAY DRIVER	V= +28VDC	RELAY COIL IN LIQUID QUANTITY INDICATOR (41M1)				CB11-MASTER TEST (36A4) MASTER TEST SW P/O MASTER TEST PANEL (734A1)	01D23	WHL562	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-2 019 FIG. 2	562
563	SOLENOID DRIVER	V= +28VDC	BLEED MANIFOLD MODULATING VALVE (42L9)				CB42(5A) CABIN PRESS (36A2) BLEED MANIFOLD 475°F OVERTEMP SW (42A7)	06Q05	HCL563	IWSFD FIG. 43 ZONE 37B NAVAIR 01-F14AAA-2-2-2 005 FIG. 2	563
564	DC - 1 POLE	V= +28VDC	WINDSHIELD POWER CONTROL (40A1)				CB32(5A) GND TEST/MACH LVR (36A4) P/O K19 MLG SAFETY A RLY RGRB (772A1) 51, 54, 52 - SYSTEM TEST PNL (790A1)	04Q20	HKL564	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 4	564
565	DC - 1 POLE	V= +28VDC	A & L ALARM CONTROLS (71A1, 71A2)				CB32-GND TEST/MACH LVR BIT (36A4) K19 MLG SAFETY A RLY RGRB (772A1) 51, 52, 54 - SYSTEM TEST PNL (790A1)	07Q30	FPL565	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 5	565

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 43 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
566	DC - 1 POLE	V= +28VDC	RADAR WARNING SYSTEM				CB32-GND TEST/MACH LVR BIT (36A4) K19 MLG SAFETY A RLY RGRB (772A1) S1, S2, S4 - SYSTEM TEST PNL (790A1)	07Q23	SWL566	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 6	566
567	AC - 1 POLE	V=115VAC ϕC	HTR & HTR CONTROL ICE DETECTOR (39A1) (LEFT INLET DUCT)	100%			CB12-ICE DET (35A6)		HEL567	IWSFD FIG. 43 ZONE 29C NAVAIR 01-F14AAA-2-2-6 013 FIG. 2	567
568	ENABLE DRIVER	V= +28VDC	a) LEFT ALARM CONTROL (71A2) b) RIGHT ALARM CONTROL (71A1) (FIRE DETECTION SHORT TEST SIGNAL)				CB32(5A) GND TEST/MACH LVR BIT (36A4) P/O K19 MLG SAFETY A (RIGHT GLOVE RELAY BOX 772A1)	01D24	WGL568	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	568
569	LAMP DRIVER	V= +28VDC	L. FIRE LAMP P/O AIR COMBAT MANEUVER PNL (702A1)				P/O K14-WARN LT TEST (RIGHT GLOVE RELAY BOX 772A1) CB33-L FIRE DET LT (36A2)	01D25	WGL569	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	569
570	LAMP DRIVER	V= +28VDC	R. FIRE LAMP P/O AIR COMBAT MANEUVER PNL (702A1)				CB32-R. FIRE DET LT (36A2) P/O K14-WARN LT TEST (RIGHT GLOVE RELAY BOX 772A1)	01D26	WGL570	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	570
571	DC - 1 POLE	V= +28VDC	+28VDC INPUT & CAUTION (P/O L ALARM CONTROL 71A2)	100%			CB33 L FIRE DET LT (36A2)	07Q24	PAL571	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	571
572	DC - 1 POLE	V= +28VDC	+28VDC INPUT & CAUTION (P/O R ALARM CONTROL 71A1)				CB32 R FIRE DET LT (36A2)	07Q25	PAL572	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	572

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 43 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
573	SOLENOID DRIVER	V= +28VDC	SOL. NO. 1 SPD BRK CONT VALVE (54L1)				CB7 SPBK/P-ROLL TRIM ENABLE (36A3)	11Q33	NAL573	IWSFD FIG. 43 ZONE 36C NAVAIR 01-F14AAA-2-2-4 006 FIG. 1	573
574	SOLENOID DRIVER	V= +28VDC	SOL NO. 1 SPD BRK CONT VALVE (54L1)				CB7(5A) SPBK/P-ROLL TRIM ENABLE (36A3)	11Q34	NAL574	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-4 006 FIG. 1	574
575	FLAG DRVR	V= +28VDC	SPEED BREAKES-IN INDICATION (78M1)				CB1-GND ROLL BREAKING/ SPOILER POS IND (36A2) UPPER & LOWER SPEED BRAKE POS SW (78S1, 78S2)	01D27	NAL575	IWSFD FIG. 43 ZONE 40B F14AAA-2-2-4 006 FIG. 1	575
576	FLAG DRVR	V= +28VDC	SPEED BRAKES-PARTIAL INDICATION (78M1)				CB1-GND ROLL BREAKING/ SPOILER POS. IND (36A2)	01D28	NAL576	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-4 006 FIG. 1	576
577	FLAG DRVR	V= +28VDC	SPEED BRAKES - FULL INDICATION (78M1)				CB1-GND ROLL BRAKING/ SPOILER POS. IND (36A2)	01D29	NAL577	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-4 006 FIG. 2	577
578	LAMP DRIVER	V= 28VDC	MASTER TEST PANEL (734A1) (GO LAMP)				CB11(3A) MASTER TEST (36A4) CB16(5A) EMERG GEN TEST/L AICS LK UP PWR (36A2) K23, K24 (RGRB)	01D30	DUL578	NAVAIR 01-F14AAA-2-2-9 011 FIG. 3, 9, 10, 13	578
579	LAMP DRIVER	V= 28VDC	MASTER TEST PANEL (734A1) (NO GO LAMP)				CB11(3A) MASTER TEST (36A4) CB2(5A) EMERG GEN CONTR (36A4) K23, K24, (RGRB)	01D31	DUL579	NAVAIR 01-F14AAA-2-2-9 011 FIG. 3, 9 10, 13	579
580	AC - 1 POLE	V=115VAC ØB I=7.5A	115VAC INSTRUMENT BUS				CB26(7.5A) INST BUS FDR (35A4) P/O K2 MLG SAFETY F (RIGHT GLOVE RELAY BOX 772A1)		XAL580	IWSFD FIG. 43 ZONE 16	580

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 43 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
581	AC - 1 POLE	V= 26VAC	26VAC INST BUS				CB1(5A) 26VAC BUS FDR (35A2) P/O K17 MLG SAFETY J (LEFT GLOVE RELAY BOX 773A1)		XAL581	IWSFD FIG. 43 ZONE 16	581
582	ENABLE DRIVER	V= +28VDC	a) (OBC SELECT 28VDC) P/O THROTTLE CONTROL COMPUTER (21A1) b) (PILOT OBC DISCRETE-ON) P/O CSDC (07A1)				CB11-MASTER TEST (36A4) 53 & 52-MASTER TEST PANEL (734A1) K29 - MLG SAFETY N RGRB (772A1)	04D08 04D27	MJL582	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIGS 6, 7 8,	582
583	ENABLE DRIVER	V= +28VDC	(BIT ARM 28VDC) AIRCRAFT YAW COMPUTER (20A1)				CB11(3A) MASTER TEST (36A4)	06D28	MJL583	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIG 6, 7, 8	583
584	ENABLE DRIVER	V= +28VDC	a) PITCH COMPUTER (20A2) b) ROLL COMPUTER (20A3) (BIT ARM - 28VDC)				CB11-MASTER TEST (36A4) 52-MASTER TEST PANEL (734A1) K29-MLG SAFETY N RGRB (772A1) K57-WING SWP > 62° RGRB (772A1) K60-FLAPS DOWN RGRB (772A1)	04D28 06D29	MJL584	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-9 011 FIG. 6, 7 8	584
585	DC - 1 POLE	V= 28VDC	MOTOR GENERATOR SOLENOID CONTROL VALVE (67L1)				CB2(5A) EMERG GEN (36A4) CB11(3A) MASTER TEST (36A4) CB16(3A) EMERG GEN TEST/L ACS LK UP PWR (36A2) P/O K24 EMERG GEN TEST NO. 1 RELAY P/O K23 EMERG GEN TEST NO. 2 RELAY	03Q46	MJL585	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-9 011 FIG. 9	585

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 43 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
586	ENABLE DRIVER	V= +28VDC	(TEST INITIATE-ON) MACH LEVER CONTROL UNIT (46A1)				CB11-MASTER TEST (36A4) 52, 53-MASTER TEST PANEL (734A1) K29-MLG SAFETY N RGRB (772A1)	06D30	MJL586	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIG. 10	586
587	ENABLE DRIVER	V= +28VDC	(TEST SIGNAL-ON) ADC (05A1)				52, 53-MASTER TEST PANEL (734A1) K12 MLG SAFETY K RGRB (772A1)	06D40	MJL587	NAVAIR 01-F14AAA-2-2-9 011 FIG. 11	587
588	AC - 1 POLE (ASSOCIATED WITH 559	V=115VAC ØB	NFO SEAT BUCKET HEIGHT ADJUSTMENT MOTOR-M1 (38A2) DWN PHASE				CB7(5A) ACM LT/SEAT ADJ/STEADY POS LT (35A1)	07Q26	WFL588	NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	588
589	AC - 1 POLE (ASSOCIATED WITH 590)	V=115VAC ØB	PILOT SEAT BUCKET HEIGHT ADJUSTMENT MOTOR - M1 (38A1) UP PHASE				CB7(5A) ACM LT/SEAT ADJ/STEADY POS LT (35A1)	07Q27	WFL589	NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	589
590	AC - 1 POLE (ASSOCIATED WITH 589)	V=115VAC ØB	PILOT SEAT BUCKET HEIGHT ADJUSTMENT MOTOR - M1 (38A1) DWN PHASE				CB7(5A) ACM LT/SEAT ADJ/STEADY POS LT (35A1)	07Q28	WFL590	NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	590
591	LAMP DRIVER	V=28VDC	EJECT COMMAND INDICATOR (70A1) PILOTS LANDING GEAR CONTROL PANEL				CB34(3A) LAN/LAD CAUTION EJECT CMD IND (36A2)	01D32	WFL591	NAVAIR 01-F14AAA-2-2-3 005 FIG. 2	591
592	ENABLE DRIVER	V=28VDC	a) LEFT ALARM CONTROL (71A2) b) RIGHT ALARM CONTROL (71A1) (FIRE TEST SWITCH SIGNAL)				CB11(3A) MASTER TEST (36A4)	01D33	WGL592	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	592

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 43 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
559	WFL559 = WFS568	568	559	3	a) R. MAIN BUS b) CAN BE A SINGLE POLE-DOUBLE THROW CENTER OFF POWER CONTROLLER ASSOCIATED WITH WFL588	IWSFD FIG. 43 ZONE 18C NAVAIR 01-F14AAA-2-2-3 005 FIG. 2	NFO SEAT BUCKET HEIGHT ADJUSTMENT MOTOR-UP = NFO SEAT HEIGHT - UP
560	WFL560 = WFS572	572	560	2	a) AFCS BUS b) ASSOCIATE WITH WFL591	IWSFD FIG. 43 ZONE 38C NAVAIR 01-F14AAA-2-2-3 004 FIG. 2	PILOTS EJECT COMMAND INDICATOR (70M1) - PILOT = EJECT MODE SELECTOR - PILOT
561	XAL561	N/A	561	2	INSTRUMENT BUS	IWSFD FIG. 43 ZONE 25C NAVAIR 01-F14AAA-2-2-2 019 FIG. 2	LIQUID QUANTITY INDICATOR (41M1) POWER SOURCE - ENABLED = 115VAC PHA ESS NO. 2 BUS-ON
562	WHL562 = MJS068 • DUS561	068 561	562	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-2 019 FIG. 2	RELAY COIL IN LIQUID QUANTITY INDICATOR - ENERGIZED = TEST SELECTOR - DEPRESSED AND MASTER TEST-INST
563	HCL563 = HCS550	550	563	2	AFCS BUS	IWSFD FIG. 43 ZONE 37B NAVAIR 01-F14AAA-2-2-2 005 FIG. 2	BLEED MANIFOLD MODULATING VALVE - ENERGIZED = BLEED MANIFOLD SW - $> 475^{0}$F
564	HKL564 = HKS551 • MJS055 • • WAS054 • GDS002 • GDS102	002 054 055 102 551	564	3	R. MAIN BUS	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 4	WINDSHIELD POWER CONTROL - ON = WSHLD HEAT - ON AND TEST - DEPRESSED AND DOOR SWITCH-OPEN AND L AND R MAIN LDG-WOW
565	FFL565 = FFS552 • MJS055 • WAS054 • GDS002 • GDS102	002 054 055 102 552	565	3	R. MAIN BUS	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 5	R AND L ALARM CONTROL - ON = FIRE SHORT-ON AND TEST DEPRESSED AND DOOR SWITCH-OPEN AND L AND R MAIN LDG-WOW

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 43 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
566	SWL566 = SNS553 • MJS055 • WAS054 • GDS002 • GDS102	002 054 055 102 553	566	3	R. MAIN BUS	IWSFD FIG. 43 ZONE 31B NAVAIR 01-F14AAA-2-2-5 010 FIG. 5	RADAR WARNING SYSTEM- ON = BLANK PULSE-ON AND TEST-DEPRESSED AND DOOR SWITCH-OPEN AND L AND R MAIN LDG - WOW
567	HEL567	N/A	567	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 29C NAVAIR 01-F14AAA-2-2-6 013 FIG. 2	HTR & HTR CONTROL - ON = 115VAC PH C ESS NO. 2 - ON
568	WGL568 = GDS002 • GDS102 • WAS054 • MJS055 • WGS573	002 054 055 102 573	568	3	R. MAIN BUS	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	LEFT AND RIGHT ALARM CONTROL - FIRE DETECTION SHORT TEST SIGNAL (28VDC) = LEFT AND RIGHT MLG-WEIGHT ON WHEELS AND DOOR SWITCH - OPEN AND TEST - DEPRESSED AND FIRE SHORT-SELECTED
569	WGL569 = WGS555 + (LAS073 • MJS068)	068 073 555	569	2	AFCS BUS	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	L. FIRE LAMP-ON = L. ALARM LAMP-ON OR LTS AND TEST SELECTOR - DEPRESSED
570	WGL570 = WGS556 • (LAS073 • MJS068)	068 073 556	570	2	AFCS BUS		R. FIRE LAMP - ON = R. ALARM LAMP - ON OR LTS AND TEST SELECTOR - DEPRESSED
571	PAL571	N/A	571	2	AFCS BUS	IWSFD FIG. 43 ZONE 38B NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	+28VDC INPUT & CAUTION - ON = 28VDC ESS NO. 2 BUS - ON
572	PAL572	N/A	572	2	AFCS BUS	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	+28VDC INPUT & CAUTION - ON = 28VDC ESS NO. 2 BUS - ON

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 43 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
573	NAL573 = QKS194 • QKS195 • (NAS557 + NAS558)	194 195 557 558	573	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 36C NAVAIR 01- F14AAA-2-2-4 006 FIG. 1	SOL NO. 1 SPDBRK CONT VALVE - ON = LEFT THROTTLE - < MIL PWR AND RIGHT THROTTLE -< MIL PWR AND SPD BRAKES (HOLD OR EXT)
574	NAL574 = NAS558	558	574	2	ESS. NO. 2 BUS	IWSFD FIG. 43 NAVAIR 01- F14AAA-2-2-4 006 FIG. 1	SOL NO. 2 SPDBRK CONT VALVE - ON = SPD BRAKES - EXT
575	NAL575 = NAS559	559	575	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 40B NAVAIR 01- F14AAA-2-2-4 006 FIG. 1	SPEED BRAKES - IN = LWR SPD BRAKE - IN
576	NAL576 = NAS560. $\overline{\text{NAS559}}$	559 560	576	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 40B NAVAIR 01- F14AAA-2-2-4 006 FIG. 1	SPEED BRAKES - PARTIAL = UPPER SPD BRAKE - OTHER AND LWRSPD BRAKE - NOT IN (OTHER)
577	NAL577 = $\overline{\text{NAS560}}$ • $\overline{\text{NAS559}}$	559 560	577	2	ESS. NO. 2 BUS	IWSFD FIG. 43 NAVAIR 01- F14AAA-2-2-4 006 FIG. 1	SPEED BAAKES - FULL = UPPER SPD BRAKE - FULL AND LWR SPD BRAKE - NOT IN (OTHER)
578	DUL578 = MJS068 • [LAS073 + (MJS564 • MJS562) + (MJS565 • DUS576) + (DUS174 • DES577)]	068 073 174 562 564 565 576 577	578	3	L. MAIN BUS	NAVAIR 01- F14AAA-2-2-9 011 FIG. 3, 9, 10, 13	MASTER TEST PANEL - GO LAMP ON = TEST SELECTOR - DEPRESSED AND [LTS OR (EMERG GEN AND NO 1 AND NO 2 AC AND DC RELAYS - ENERGIZED) OR (MACH LEV AND GO SIGNAL) OR (FLT GR UP AND AIR PRESS ≥ 10.5 PSIG)]

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 43 SHEET 4

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
579	DUL579 = MJS068 • [LAS073 + (MJS564 • MJS562 + (MJS565 • (DUS574 + DUS575)) + (DUS174 • DES578)]	068 073 174 562 564 565 574 575 578	579	3	L. MAIN BUS	NAVAIR 01-F14AAA-2-2-9 011 FIG. 3, 9 10, 13	MASTER TEST PANEL - NO GO LAMP ON = TEST SELECTOR DEPRESSED AND [LTS OR (EMERG GEN AND NO. 1 AND NO. 2 - AC AND DC RELAYS - UNENERGIZED) OR (MACH LEV AND LEFT OR RIGHT FAULT SIGNAL) OR (FLT GR UP AND AIR PRESS < 6.5 PSIG)]
580	XAL580 = XAS277 + GDS002 + GDS102	002 102 277	580	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 16	115VAC PHB INST BUS PWR - ON = INST - ON OR LEFT OR RIGHT MLG-WEIGHT ON WHEELS NOT
581	XAL581 = XAS277 + GDS002 + GDS102	002 102 277	581	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 16	26VAC INST BUS PWR - ON = INST - ON OR LEFT OR RIGHT MLG-WEIGHT ON WHEELS NOT
582	MJL582 = MJS563 • MJS068 • GDS002 • GDS102	002 068 102 563	582	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIGS 6, 7, 8	THROTTLE CONTROL COMPUTER - OBC SELECT 28VDC AND CSDC-PILOT OBC DISCRETE ON = OBC AND TEST SELECTOR DEPRESSED AND L AND R MLG - WOW
583	MJL583 = MJS563 • GDS002 • GDS102	002 102 563	583	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIG. 6, 7, 8	YAW COMPUTER - BIT ARM 28VDC = OBC AND L AND R MLG-WOW
584	MJL584 = GDS002 • GDS102 • MJS563 • (CGS217 + CGS218 + CKS001	001 002 102 217 218 563	584	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIGS 6, 7, 8	BIT ARM - ON = L AND R MLG-WOW AND OBC AND (LEFT FLAP - ≥ 25° OR RIGHT FLAP- ≥ 25° OR WING SWP - > 62°)
585	MJL585 = MJS068 + MJS564) • PAS...	068 564 539	585	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIG. 9	MOTOR-GENERATOR SOLENOID CONTROL VALVE-ENERGIZED (MOTOR GENERATOR-OFF) = MASTER TEST-NOT DEPRESSED OR EMERG GEN-NOT SELECTED AND LEFT DC PWR-ON LINE

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 43 SHEET 5

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
586	MJL586 = MJS068 • • MJS565 • GDS002 • GDS102	002 068 102 565	586	3	L. MAIN BUS	IWSFD FIG. 43 ZONE 32B NAVAIR 01-F14AAA-2-2-9 011 FIG 10	TEST INITIATE - ON = TEST SELECTOR - DEPRESSED AND MACH LEV AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS
587	MJL587 = GDS002 • GDS102 • MJS068 • MJS566 • MJS567	002 068 102 566 567	587	3	L. MAIN BUS	NAVAIR 01-F14AAA-2-2-9 011 FIG 11	TEST SIGNAL - ON = L AND R MLG-WOW AND TEST SELECTOR-DEPRESSED AND WG SWP AND TEST INITIATE - ON
588	WFL588 = WFS569	569	588	3	a) R. MAIN BUS b) CAN BE A SINGLE POLE - DOUBLE THROW CENTER OFF POWER CONTROLLER ASSOCIATED WITH WFL559	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	NFO SEAT BUCKET HEIGHT ADJUSTMENT MOTOR-DWN = NFO SEAT HEIGHT - DWN
589	WFL589 = WFS570	570	589	3	a) R. MAIN BUS b) CAN BE A SINGLE POLE DOUBLE THROW CENTER OFF POWER CONTROLLER ASSOCIATED WITH WFL590	NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	PILOT SEAT BUCKET HEIGHT ADJUSTMENT MOTOR-UO = PILOT SEAT HEIGHT - UP
590	WFL590 = WFS571	571	590	3	a) R. MAIN BUS b) CAN BE A SINGLE POLE DOUBLE THROW CENTER OFF POWER CONTROLLER ASSOCIATED WITH WFL589	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-3 00500 FIG. 2	PILOT SEAT BUCKET HEIGHT ADJUSTMENT MOTOR - DWN = PILOT SEAT HEIGHT - DWN
591	WFL591 = $\overline{\text{WFS572}}$	572	590	3	a) AFCS BUS b) ASSOCIATED WITH WFL560	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-3 005 FIG. 2	PILOTS EJECT COMMAND INDICATOR (7QM1) - MCO= EJECT MODE SELECTOR - MCO (PILOT NOT)
592	WGL592 = WGS554 • MJS068	068 554	592	3	L. MAIN BUS	IWSFD FIG. 43 NAVAIR 01-F14AAA-2-2-6 015 FIG. 2	LEFT AND RIGHT ALARM CONTROL - FIRE TEST SWITCH SIGNAL 28VDC = FIRE DET - ON AND TEST SELECTOR DEPRESSED

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 44 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
083	PROBE OUT/ LOCKED SWITCH - LOCKED	QF3083	PROBE OUT/LOCKED SWITCH (62S2) P/O PROBE HARNESS SWITCH & LIGHT ASSY	LEFT SIDE FS220	LIMIT SWITCH	LOCKED= SWITCHED 115VAC ØB UNLOCKED = OPEN	PROBE LITE (60DS4)	PROBE OUT/LOCKED SWITCH (62S2)	01P57	IWSFD FIG 44 ZONE 2B	158	SOLID STATE
084	TAXI LITES - ON	LRS084	MASTER LITE CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH SPDT	ON=SWITCHED 115VAC ØA OFF = OPEN	TAXI/LANDING LIGHT (60DS5)	TAXI (52) SWITCH	02P54	IWSFD FIG. 44 ZONE 3B	159	SOLID STATE
085	NLG-DOWN AND LOCKED	GD3085	NLG DOWN AND LOCKED SWITCH (75S3) P/O LANDING GEAR INDICATING SYSTEM	FS342	LIMIT SWITCH	DOWN AND LOCKED= SWITCHED 115VAC ØA UNLOCKED = OPEN	TAXI/LANDING LIGHT (60DS5	NLG DOWN AND LOCKED SWITCH (75S3)	04P22	IWSFD FIG. 44 ZONE 4B	159 165 166 288 298 299	SOLID STATE
086	ANTI-COLLISION LITES-ON	LN3086	MASTER LITE CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH DPDT	ON=SWITCHED CHOPPED 115VAC OFF = OPEN	ANTI COLLISION LITE	ANTI-COLLISION LITE SWITCH - S8	02P55	IWSFD FIG. 44 ZONE 3B	160 161 162 163 164 165 166	SOLID STATE
087	MASTER LITE STEADY	LN3087	MASTER LITE CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH SPDT	STEADY=SWITCHED 115VAC FLASH=SWITCHED CHOPPED 115VAC	TAIL & WING POSITION LITES	MASTER LIGHT STEADY/ FLASH SWITCH - S7	02P56	IWSFD FIG. 44 ZONE 3A	161 162 163 164 165 166	SOLID STATE
088	TAIL POSITION BRIGHT	LN3088	MASTER LITE CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH SPDTCO	BRIGHT=SWITCHED 115VAC	TAIL POSITION LITES	TAIL POSITION SWITCH S6	02P57	IWSFD FIG. 44 ZONE 3A	161	SOLID STATE
089	TAIL POSITION DIM	LN3089	MASTER LISHT CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH SPDTCO	DIM=SWITCHED 115VAC OFF = OPEN	TAIL POSITION LITES	TAIL POSITION SWITCH S6	02P58	IWSFD FIG. 44 ZONE 3A	162	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 44 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
090	WING POSITION BRIGHT	LNS090	MASTER LIGHT CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH DPDTCO	BRIGHT=SWITCHED 115VAC OFF = OPEN	WING & SUPP POSITION LITES	WING POSITION SWITCH S5	Q2P59	IWSFD FIG. 44 ZONE 3A	163 166	SOLID STATE
091	WING POSITION DIM	LNS091	MASTER LIGHT CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	TOGGLE SWITCH DPDTCO	DIM=SWITCHED 115VAC OFF = OPEN	WING & SUPP POSITION LITES	WING POSITION SWITCH S5	Q2P60	IWSFD FIG. 44 ZONE 3A	164 165	SOLID STATE
092	WING SWEEP $> 25^{\circ}$	CKS092	SWITCH ACTUATOR TRANSMITTER (6383) P/O WING SURFACE CONTROL SYSTEM	FS570	LIMIT SWITCH	SWITCHED 28VDC	K11 POSITION LITE (LEFT GLOVE RELAY BOX 773A1)	N/A	Q5P22	IWSFD FIG. 44 ZONE 7A	163 164 165 166	RESISTOR DIVIDER ADAPTER
093	FORMATION LITES ON	LFS093	MASTER LITE CONTROL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	15 POSITION THUMB WHEEL POSITION "0" OFF POSITION "1" ON-DIM POSITION "14" ON-BRT	SWITCHED 28VDC	MULT CHANNEL LIGHTING CONTROL 56A1	N/A	Q4P23	IWSFD FIG. 44 ZONE 3C	167	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 44 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
158	AC - 1 POLE	V=115VAC ØB I=5A	PROBE LIGHT (60DS4)				CB16(5A) PROBE LITE (35A4) K21 APPROACH LTS (RIGHT GLOVE RELAY BOX 772A1)	04Q21	LWL158	IWSFD FIG. 44 ZONE 2B, 1B	158
159	AC - 1 POLE	V=115VAC ØC I=7½A	TAXI/LANDING LITE (60DS5)				CB18(7½) TAXI/FORM LT (35A1)	01Q59	LRL159	IWSFD FIG. 44 ZONE 4C, 3B 1A	159
160	AC - 1 POLE	V=115VAC I=7½A	a) FUSELAGE ANTI COLLISION LIGHT (60DS1) b) RIGHT VERTICAL FIN ANTICOLLISION LIGHT (60DS17) c) LEFT VERTICAL FIN ANTICOLLISION LIGHT (60DS18)				CB10(7½A) ANTICOLL/SUPP POS/POS LTS (35A1) AC FLASHER (60DS19) K22 EXT LT MASTER NO. 1 RIGHT GLOVE RELAY BOX	01Q12	LNL160	IWSFD FIG. 44 ZONE 8C, 7C 3B, 2A, 1A	160
161	AC - 1 POLE COULD BE DPDT CO CONTROLLER ASSOCIATED WITH 162	V=115VAC ØB I=5A	TAIL POSITION LITES BRIGHT				CB7(5A) ACM LT/SEAT ADJ STEADY POS LT (35A1)	11Q35	LNL161	IWSFD FIG. 44 ZONE 11A, 3A 2A, 1A	161
162	AC-1 POLE COULD BE DPDTCO CONTROLLER ASSOCIATED WITH 161	V=115VAC ØB I=5A	TAIL POSITION LITES DIM				CB7(5A) ACM LT/SEAT ADJ STEADY POS LT (35A1)	11Q36	LNL162	IWSFD FIG. 44 ZONE 11A, 4A 3A, 2A, 1A	162
163	AC- 1 POLE COULD BE DPDTCO CONTROLLER ASSOCIATED WITH 164	V=115VAC ØB I=5A	a) LEFT WING POSITION LITE (60DS8) - BRITE b) RIGHT WING POSITION LITE (60DS10) BRITE				K11 POSITION LITE (LEFT GLOVE RELAY BOX 773A1) CB33(5A) EXT LT CONT (36A4)	11Q23	LNL163	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A, 2A, 1A	

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 44 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
164	AC 1 POLE COULD BE DPDTCO CONTROLLER ASSOCIATED WITH 163	V=115VAC ØB I=5A	a) LEFT WING POSITION LITE (60DS8) DIM b) RIGHT WING POSITION LITE (60DS10) DIM				CB33(5A) EXT LT CONT (36A4) K11 - POSITION LIT (LEFT GLOVE RELAY BOX 773A1)	11Q24	LNL164	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A, 2A, 1A	
165	AC - 1 POLE COULD BE DPDTCO CONTROLLER ASSOCIATED WITH 166	V=115VAC ØB	a) LEFT UPPER & LOWER SUPP. POS. LITE - DIM (60DS6, 60DS7) b) RIGHT UPPER & LOWER SUPP. POS. LITE - DIM (60DS9, 60DS11)				K85 STEADY SUPP POSITION LT (LEFT GLOVE RELAY BOX 773A1) CB10(7½A) ANTI COLL./ SUPP POS/POS LTS (35A1)	07Q36 03Q47	LNL165	IWSFD FIG. 44 ZONE 9, 8, 7A, 7B, 4A, 3A, 2A, 1A	
166	AC - 1 POLE COULD BE DPDTCO CONTROLLER ASSOCIATED WITH 165	V=115VAC ØB	a) LEFT UPPER & LOWER SUPP. POSITION LITE - BRITE (60DS6, 60DS7) b) RIGHT UPPER & LOWER SUPP. POSITION LITE - BRITE (60DS9, 60DS11)				K85 STEADY SUPP POS LT (LEFT GLOVE RELAY BOX 773A1) CB10(7½A) ANTI-COLL/ SUPP POS/POS LTS (35A1)	07Q37 03Q48	LNL166	SAME AS 165	
167	AC - 1 POLE	V=115VAC ØA	MULTI CHANNEL LIGHTING CONTROL (56A1)				CB18(7½A) TAXI/FORM LTS (35A1)	04Q22	LFL167	IWSFD FIG. 44 ZONE 1A, 3C 5A	

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 44 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
158	LML158 = $\overline{LAS048}$ • QFS083	048 083	158	2	ESS. NO. 2 BUS	IWSFD FIG. 44 ZONE 2B, 1B	PROBE LIGHT - ON = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS ON AND THE PROBE OUT/LOCKED SWITCH IS LOCKED
159	LRL159 = $\overline{LAS048}$ • LRS084 • GDS085	048 084 085	159	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 4C, 3B, 2A, 1A	TAXI/LANDING LITE - ON = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS ON AND TAXI LITE SWITCH IS ON AND NLG DOWN AND LOCKED SWITCH IS IN THE DOWN AND LOCKED POSITION
160 *	LNL160 = $\overline{LAS048}$ • LNS086	048 086	160	3	a) R. MAIN BUS b) SEE NOTE 1	IWSFD FIG. 44 ZONE 8C, 7C, 3B, 2A, 1A	ANTI COLLISION LITES ON = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS ON AND ANTI COLLISION SWITCH ON NOTE 1 ANTI COLLISION LITES ON REQUIRES LITE FLASH AT 30 ± 10 FLASHES PER MINUTE
161A	LNL161 = $\overline{LAS048}$ • LNS088 • (LNS087 + $\overline{LNS087}$ • LNS086)	048 086 087 088	161	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 11A, 3A, 2A, 1A	TAIL POSITION LITE BRIGHT STEADY = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS - ON AND TAIL POSITION SWITCH - BRIGHT AND STEADY/FLASH SWITCH-STEADY OR STEADY/FLASH SWITCH-FLASH AND ANTI COLLISION LITE SWITCH - ON
161B	LNL161 = $\overline{LAS048}$ • LNS088 • $\overline{LNS087}$ • LNS086	048 086 087 088	161	3	a) R. MAIN BUS b) SEE NOTE 1	SAME AS 161A	TAIL POSITION LITE BRIGHT FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS-ON AND TAIL POSITION SWITCH-BRIGHT AND STEADY/FLASH SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-OFF NOTE 1: REQUIRES PROCESSER TIMER AT 30 ± 10 FLASHS/MINUTE
162A	LNL162 = $\overline{LAS048}$ • LNS089 • (LNS087 + $\overline{LNS087}$ • LNS086)	048 086 087 089	162	3	R. MAIN BUS	SAME AS 161A	TAIL POSITION LITE DIM STEADY = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS - ON AND TAIL POSITION SWITCH - DIM AND STEADY/FLASH SWITCH-STEADY/FLASH SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-ON
162B	LNL162 = $\overline{LAS048}$ • LNS089 • LNS087 • LNS086	048 086 087 089	162	3	a) R. MAIN BUS b) SEE NOTE 1	SAME AS 161A	TAIL POSITION LITE DIM FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH IS - ON AND TAIL POSITION SWITCH-DIM AND STEADY/FLASH SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-OFF

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 44 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Consideretions	7 Reference Drawings	8 Equation Description & Notes
163A	LNL163 = $\overline{\text{LAS048}}$ • LNS090 • $\overline{\text{CKS092}}$ • (LNS087 + $\overline{\text{LNS087}}$ • LNS086)	048 086 087 090 092	163	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A 2A, 1A	LEFT AND RIGHT WING POSITION LITES-BRITE STEADY= THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-BRIGHT AND WING SWITCH ACTUATOR TRANSMITTER - < 25° AND MASTER LITE CONTROL SWITCH-STEADY OR MASTER LITE CONTROL SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-ON
163B	LNL163 = $\overline{\text{LAS048}}$ • LNS090 • $\overline{\text{CKS092}}$ • $\overline{\text{LNS087}}$ • LNS086	048 086 087 090 092	163	3	a) R. MAIN BUS b) SEE NOTE 1	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A 2A, 1A	LEFT AND RIGHT WING POSITION LITES - BRITE FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH- ON AND WING POSITION SWITCH-BRIGHT AND WING SWITCH ACTUATOR TRANSMITTER - < 25° AND MASTER LITE CONTROL SWITCH FLASH AND ANTI COLLISION LITE SWITCH-OFF
164A	LNL164 = $\overline{\text{LAS048}}$ • LNS091 • $\overline{\text{CKS092}}$ • (LNS087 + $\overline{\text{LNS087}}$ • LNS086)	048 086 087 091 092	164	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A 2A, 1A	LEFT AND RIGHT WING POSITION LITES-DIM STEADY = THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-DIM AND WING SWITCH ACTUATOR TRANSMITTER < 25° AND MASTER LITE CONTROL SWITCH-STEADY OR MASTER LITE CONTROL SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-ON
164B	LNL164 = $\overline{\text{LAS048}}$ • $\overline{\text{LNS091}}$ • $\overline{\text{CKS092}}$ • $\overline{\text{LNS087}}$ • LNS086	048 086 087 091 092	164	3	a) R. MAIN BUS b) SEE NOTE 1	IWSFD FIG. 44 ZONE 12B, 12C 8A, 7A, 4A, 3A 2A, 1A	LEFT AND RIGHT WING POSITION LITES-DIM FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-DIM AND WING SWITCH ACTUATOR TRANSMITTER - < 25° AND MASTER LITE CONTROL SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-OFF NOTE 1: REQUIRES PROCESSOR TIMER AT 30 ± 10 FLASH/MINUTE
165A	LNL165 = $\overline{\text{LAS048}}$ • LNS091 • (GDS085 + $\overline{\text{GDS085}}$ • CKS092 • (LNS087 + $\overline{\text{LNS087}}$ • LNS086))	048 085 086 087 091 092	165	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 9, 8, 7A, 7B, 4A, 3A, 2A, 1A	LEFT AND RIGHT UPPER AND LOWER SUPPLEMENTARY POSITION LITES-DIM STEADY = THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-DIM AND NLG DOWN AND LOCKED OR NLG-UNLOCKED AND SWITCH ACTUATOR TRANSMITTER > 25° AND MASTER LITE SWITCH-STEADY OR MASTER LITE SWITCH-FLASH AND ANTI COLLISION LITE SWITCH-ON
165B	LNL165 = $\overline{\text{LAS048}}$ • LNS091 • $\overline{\text{GDS085}}$ • $\overline{\text{CKS092}}$ • $\overline{\text{LNS087}}$ • LNS086	048 085 086 087 091 092	165	3	a) R. MAIN BUS b) SEE NOTE 1	IWSFD FIG. 44 ZONE 9, 8, 7A, 7B, 4A, 3A, 2A, 1A	LEFT AND RIGHT UPPER AND LOWER SUPPLEMENTARY POSITION LITES-DIM FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-DIM AND NLG-UNLOCKED AND SWITCH ACTUATOR TRANSMITTER - > 25° AND MASTER LITE SWITCH FLASH AND ANTI COLLISION LITE SWITCH-OFF NOTE 1: REQUIRES PROCESSOR TIMER AT 30 ± 10 FLASHES/minute

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 44 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
166A	LNL165 = LAS048 • LNS090 • (GDS085 + GDS085 • CKS092 • (LNS087 + LNS087 • LNS086))	048 085 086 087 090 092	166	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 9, 8, 7A, 7B, 4A, 3A, 2A 1A	LEFT AND RIGHT UPPER AND LOWER SUPPLEMENTARY POSITION LITES-BRIGHT STEADY= THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH-BRIGHT AND NLG DOWN AND LOCKED OR NLG-UNLOCKED AND SWITCH ACTUATOR TRANSMITTER - > 25° AND MASTER LITE SWITCH-STEADY OR MASTER LITE SWITCH FLASH AND ANTI COLLISION LITE SWITCH-ON
166B	LNL166 = LAS048 • LNS090 • GDS085 • CKS092 • LNS087 • LNS086	048 085 086 087 090 092	166	3	a) R. MAIN BUS b) SEE NOTE 1	IWSFD FIG. 44 ZONE 9, 8, 7A, 7B, 4A, 3A, 2A, 1A	LEFT AND RIGHT UPPER AND LOWER SUPPLEMENTARY POSITION LITES BRIGHT FLASH = THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND WING POSITION SWITCH BRIGHT AND NLG-UNLOCKED AND SWITCH ACTUATOR TRANSMITTER - > 25° AND MASTER LITE SWITCH FLASH AND ANTI COLLISION LITE SWITCH-OFF NOTE 1: REQUIRES PROCESSOR TIMER AT 30 ± 10 FLASH/ MINUTE
167	LFL167 = LAS048 • LFS093	048 093	167	3	R. MAIN BUS	IWSFD FIG. 44 ZONE 5A, 3C, 1A	FORMATION LITES - ON (115VAC ϕA) TO THE MULTI CHANNEL LIGHTING CONTROL= THROTTLE QUADRANT EXTERIOR LITE SWITCH-ON AND FORMATION THUMBWHEEL SWITCH ON POSITIONS 1 THRU 14

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 45 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
500	INSTRUMENT LITING-ON R1	LHS500	D/L REPLY-INTR LIGHT CONTROL PANEL (724A1)	NFO'S RIGHT SIDE CONSOLE FS300	SPST- P/O INSTR. BRT CONTROL R1	OPEN/115VAC, 400 Hz ØB	NFO INSTR LIGHT CONTROL CHANNEL 7 - P/O MULTI CHANNEL LIGHTING CONTROL (56A1)	N/A	04P24	IWSFD FIG. 45 ZONE 4A, 3A 1A	505 531	RESISTOR DIVIDER ADAPTER
501	WHITE FLOOD - DIM	LHS501	D/L REPLY-INTR LIGHT CONTROL PANEL (724A1)	NFO'S RIGHT SIDE CONSOLE FS300	SP3T - TOGGLE P/O WHITE FLOOD S2	OPEN/115VAC, 400 Hz ØB	NFO WHITE FLOOD LIGHT CONTROL CHANNEL 9 P/O MULTI CHANNEL LIGHTING CONTROL (56A1)	N/A	04P25	IWSFD FIG. 45 ZONE 3B	506 531	RESISTOR DIVIDER ADAPTER
502	WHITE FLOOD - BRT	LHS502	D/L REPLY - INTR LIGHT CONTROL PANEL (724A1)	NFO'S RIGHT SIDE CONSOLE FS300	SAME AS 501	SAME AS 501 ØB	SAME AS 501	N/A	04P26	IWSFD FIG. 45 ZONE 3B	506 531	RESISTOR DIVIDER ADAPTER
503	CONSOLE LITING-ON	LHS503	D/L REPLY - INTR LIGHT CONTROL PANEL (724A1)	NFO'S RIGHT SIDE CONSOLE FS300	DPDT - P/O CONSOLE LIGHTING CONTROL R2	OPEN/115VAC, 400 Hz ØA, ØC	NFO RED FLOOD LIGHT CONTROL CHANNEL 10 - P/O MULTI CHANNEL LIGHTING CONTROL (56A1)	N/A	04P27	IWSFD FIG. 45 ZONE 3B	507 508	RESISTOR DIVIDER ADAPTER
504	ACM - ON	LHS504	MASTER LIGHT CONTROL PANEL (713A1)	PILOT'S RIGHT SIDE CONSOLE FS225	DPDT - P/O ACM CONTROL R1	OPEN/115VAC 400 Hz ØB +28VDC/OPEN	ACM PANEL (702A1) ACM PANEL LIGHT CONTROL CHANNEL 2	N/A	01P58	IWSFD FIG. 45 ZONE 8A, 7A, 5A	510 515	RESISTOR DIVIDER ADAPTER
505	INSTRUMENT R3 ON	LHS505	MASTER LIGHT CONTROL PANEL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	SPDT - P/O INSTRUMENT R3	OPEN/115VAC 400 Hz ØB	PILOT INSTRUMENT LIGHT CONTROL CHANNEL 1	N/A	02P61	IWSFD FIG. 45 ZONE 7A, 5B	511 530	RESISTOR DIVIDER ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 45 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
506	WHITE FLOOD - OFF	LHS506	MASTER LIGHT CONTROL PANEL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	SP3T - P/O WHITE FLOOD S2	115VAC 400 Hz ØB/OPEN	PILOT WHITE FLOOD LIGHT CONTROL CHANNEL 4	N/A	04P28	IWSFD FIG. 45 ZONE 7B, 5B	512 530	RESISTOR DIVIDER ADAPTER
507	CONSOLE R4 -ON	LHS507	MASTER LIGHT CONTROL PANEL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	DPDT - P/O CONSOLE R4	OPEN/115VAC 400 Hz ØA, ØC	PILOT CONSOLE LIGHT CONTROL CHANNEL 3 PILOT RED FLOOD LIGHT CONTROL CHANNEL 6	N/A	04P29	IWSFD FIG. 45 ZONE 7C, 7B 5B	513 514	RESISTOR DIVIDER ADAPTER
508	ACM R1 - OFF	LHS508	MASTER LIGHT CONTROL PANEL (713A1)	PILOTS RIGHT SIDE CONSOLE FS225	DPDT-P/O ACM CONTROL R1	26VAC/0-26VAC	ACM PANEL (702A1)	N/A	04P30	IWSFD FIG. 45 ZONE 8A, 7A 5A	515	RESISTOR DIVIDER ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 45 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
505	AC - 1 POLE	V=115VAC 400 Hz ØB	NFO INSTRUMENT LIGHT CONTROL CHANNEL 7 P/O MULTICHANNEL LIGHTING CONTROL (56A1)				P/O INSTRUMENT R1 - D/L REPLY - INTR LIGHT CONTROL PANEL (724A1) CB5(5A) INST LTS - P/O 7 ACR MAIN CIRCUIT BREAKER PANEL (35A1)	04Q23	LHL505	IWSFD FIG.45 ZONE 4A, 3A 1A	505
506	AC - 1 POLE	V=115VAC 400 Hz ØB	NFO WHITE FLOOD LIGHT CONTROL CHANNEL 9 P/O MULTICHANNEL LIGHTING CONTROL (56A1)				P/O WHITE FLOOD 52- D/L REPLY-INTR LIGHT CONTROL PANEL (724A1) CB15(5A) WHITE FLOOD LT- P/O 7 AC R. MAIN CIRCUIT BREAKER PANEL (35A1)	04Q24	LHL506	IWSFD FIG. 45 ZONE 4B, 3B 1A	506
507	AC - 1 POLE	V=115VAC 400 Hz ØA	NFO CONSOLE LIGHT CHANNEL 2 P/O MULTICHANNEL LIGHTING CONTROL (56A1)				P/O CONSOLE R2- D/L REPLY INTC LIGHT CONTROL PANEL (724A1) CB9(5A) NFO CONSOLE LT P/O 7 AC R MAIN CIRCUIT BREAKER PANEL (35A1)	04Q25	LHL507	IWSFD FIG. 45 ZONE 4B, 3B, 1B	507
508	AC - 1 POLE	V=115VAC 400 Hz, ØC	NFR RED FLOOD LIGHT CONTROL CHANNEL 10 P/O MULTICHANNEL LIGHTING CONTROL (56A1)				P/O CONSOLE R2 - D/L REPLY-INTR LIGHT CONTROL PANEL (724A1) CB3 (5A) RED FLOOD LT P/O 4 AC ESS 1 CIRCUIT BREAKER PANEL (35A3)	04Q26	LHL508	IWSFD FIG. 45 ZONE 4C, 3B, 1C	508
509	AC- 1 POLE	V=115VAC 400 Hz, ØC	UTILITY/MAP LIGHTS TRANSFORMER (56T1)	100%			CB10 (5A) UTILITY LT P/O 3AC ESS 2 ØB & C CIRCUIT BREAKER PANEL (35A4)	03Q31	LHL509	IWSFD FIG. 45 ZONE 1C	509
510	AC - 1 POLE	V=115VAC 400 HZ, ØB	ACM PANEL LIGHT CONTROL CHANNEL 2				P/O ACM - R1 MASTER LIGHT CONTROL PANEL (713A1) CB7 (5A) - ACM LT/SEAT ADJ/STEADY POS LIT P/O 7AC R MAIN CIRCUIT BREAKER PANEL (35A1)	03Q32	LHL510	IWSFD FIG. 45 ZONE 7A, 5A, 1A	510

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 45 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
511	AC - 1 POLE	V =115VAC 400 HZ, ØB	PILOT INSTRUMENT LIGHT CONTROL CHANNEL 1				P/O INSTRUMENT - RB MASTER LIGHT CONTROL PANEL (713A1) CB5 (5A) INST LTS P/O 7AC R MAIN CIRCUIT BREAKER PANEL (35A1)	04Q27	LHL511	IWSFD FIG. 45 ZONE 7B, 5A, 1A	511
512	AC - 1 POLE	V=115VAC 400 HZ, ØB	PILOT WHITE FLOOD LIGHT CONTROL CHANNEL 4				P/O WHITE FLOOD S2 MASTER LIGHT CONTROL PANEL (713A1) CB15 (5A) WHITE FLOOD LT P/O 7AC R MAIN CIRCUIT BREAKER PANEL (35A1)	04Q28	LHL512	IWSFD FIG.45 ZONE 7B, 5B, 1A	512
513	AC - 1 POLE	V=115VAC 400 HZ, ØB	PILOT CONSOLE LIGHT CONTROL CHANNEL 3				P/O CONSOLE R4 MASTER LIGHT CONTROL PANEL (713A1) CB8(5A) PILOT CONSOLE LT P/O 7 AC R MAIN CIRCUIT BREAKER PANEL (35A1)	04Q29	LHL513	IWSFD FIG.45 ZONE 7B, 5B, 1B	513
514	AC - 1 POLE	V=115VAC 400 HZ, ØB	PILOT RED FLOOD LIGHT CONTROL CHANNEL 6				P/O CONSOLE R4 MASTER LIGHT CONTROL PANEL (713A1) CB 3 (5A) RED FLOOD LT P/O 4AC ESS 1 CIRCUIT BREAKER PANEL (35A3)	04Q30	LHL514	IWSFD FIG.45 ZONE 7C, 5B, 1C	514
515	AC - 1 POLE	V =26VAC	ACM PANEL (702A1)				P/O ACM R1 MASTER LIGHT CONTROL PANEL (713A1) CB5 (3A) INS SYNC/ACM PNL LTS	03Q37	LHL515	IWSFD FIG.45 ZONE 8A, 5A, 1B	515

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 45 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
515 (cont'd)							P/O 3AC ESS 2 ØB & C CIRCUIT BREAKER PANEL (35A4)				
516	AC - 1 POLE	V = 26VAC	ACM PANEL (702A1)	100%			CB5 (3A) INS SYNC/ ACM PNL LTS P/O 3 AC ESS 2ØB & C CIRCUIT BREAKER PANEL (35A4)	03Q38	LHL516	IWSFD FIG.45 ZONE 8A, 1B	516

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 45 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
505	LHL505 = LHS500	500	505	3	a) R. MAIN BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45 ZONE 4A, 3A, 1A	NFO INSTRUMENT LIGHT CONTROL CHANNEL 7-ON = INSTRUMENT R1 - ON AND 115VAC, 400 HZ, R MAIN BUS PH. B - ON
506	LHL506 = LHS501 + LHS502	501 502	506	3	R. MAIN BUS	IWSFD FIG. 45	NFO WHITE FLOOD LIGHT CONTROL CHANNEL 9 - ON = WHITE FLOOD S2 (DIM OR BRIGHT) AND 115VAC, 400 HZ, R MAIN BUS PH. B - ON
507	LHL507 = LHS503	503	507	3	a) R. MAIN BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45 ZONE 4B, 3B, 1B	NFO CONSOLE LIGHT CONTROL CHANNEL 8 - ON = CONSOLE R2 - ON AND 115VAC 400 HZ R MAIN BUS PH A- ON
508	LHL508 = LHS503	503	508	1	a) ESS. NO. 1 BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45	NFO RED FLOOD LIGHT CONTROL CHANNEL 10 - ON = CONSOLE R2 - ON AND 115VAC 400 HZ ESS NO. 1 BUS PH. C - ON
509	LHL509	N/A	509	2	ESS. NO. 2 BUS	IWSFD FIG. 45 ZONE 1C	UTILITY/MAP LIGHTS TRANSFORMER (56T1) - ON = 115VAC 400 HZ ESS NO. 2 BUS PH. C - ON
510	LHL 510 = LHS504	504	510	3	a) R. MAIN BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45 ZONE 7A, 5A, 1A	ACM PANEL LIGHT CONTROL CHANNEL 2 - ON = ACM R1 - ON AND 115VAC 400 HZ R MAIN BUS PH. B - ON
511	LHL511 = LHS505	505	511	3	a) R. MAIN BUS b) PART OF POETNTIO-METER	IWSFD FIG. 45 ZONE 7B, 5A, 1A	PILOT INSTRUMENT LIGHT CONTROL CHANNEL 1 - ON = INSTRUMENT R3 - ON AND 115 VAC 400 HZ R MAIN BUS PH. B - ON
512	LHL512 = LHS506	506	512	3	R. MAIN BUS	IWSFD FIG. 45 ZONE 7B, 5B, 1A	PILOT WHITE FLOOD LIGHT CONTROL CHANNEL 4 - ON = WHITE FLOOD S2 (DIM OR BRIGHT) AND 115VAC 400 HZ R MAIN BUS PH. B - ON
513	LHL513 = LHS507	507	513	3	a) R. MAIN BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45 ZONE 7B, 5B, 1B	PILOT CONSOLE LIGHT CONTROL CHANNEL 3-ON = CONSOLE R4 - ON AND 115 VAC 400 HZ r MAIN BUS PH. A - ON

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 45 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
514	LHL514 = LHS507	507	514	1	a) ESS. NO. 1 BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45 ZONE 7C, 5B, 1C	PILOT RED FLOOD LIGHT CONTROL CHANNEL 6 - ON = CONSOLE R4 - ON AND 115VAC 400 HZ ESS NO. 1 BUS PH. C - ON
515	LHL515 = LHS504 +LHS508	504 508	515	3	a) R. MAIN BUS b) PART OF POTENTIO-METER	IWSFD FIG. 45	ACM PANEL LIGHTING - ON = (ACM K1 - ON AND 115VAC 400 HZ R MAIN BUS PH. B - ON) OR (ACM K1 - OFF AND 26VAC NAV BUS - ON
516	LHL516	N/A	516	2	NAV BUS	IWSFD FIG 45 ZONE 8A, 1B	ACM PNL DWR - ON = 26VAC NAV BUS - ON

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 46 SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
518	IND LT - ON	DUS518	TEST PANEL (720A1)	NFO RIGHT SIDE CONSOLE FS300	SP3T TOGGLE	OPEN/+28VDC	LAMP TEST P/O NFO CAUTION ADV IND (69A2A1)	S2 TEST PANEL (720A1)	04P31	IWSFD FIG. 46 ZONE 13C	532	SOLID STATE
519	R AUTO/STOW - STOW	KAS519	INLET RAMPS/ENG CRANK/THROTTLE CONTROL PANEL (710A1)	PILOTS LEFT SIDE CONSOLE FS225	DPDT TOGGLE	OPEN/+28VDC	R RAMPS CAUTION LIGHT (69A1)	R INLET RAMPS (710A1)	05D32	IWSFD FIG. 4 ZONE 21B	539	EXTERNAL SIGNAL ADAPTER
520	L AUTO/STOW-STOW	KAS520	INLET RAMPS/ENG CRANK/THROTTLE CONTROL PANEL (710A1)	PILOTS LEFT SIDE CONSOLE FS225	DPDT TOGGLE	OPEN/+28VDC	L RAMP CAUTION LIGHT (69A1)	L INLET RAMPS (710A1)	05D33	IWSFD FIG 4 ZONE 21C	540	EXTERNAL SIGNAL ADAPTER
521	FIRST R COMP SW - NOT STOW	KCS521	FIRST RIGHT COMPRESSION RAMP STOW SWITCH (32S6)	RIGHT SIDE FS375	SPDT LIMIT SWITCH	OPEN/+28VDC	R RAMPS CAUTION LIGHT (69A1)	FIRST RIGHT COMPRESSION RAMP STOW SWITCH (32S6)	04P32	IWSFD FIG. 4 ZONE 24A	539	SOLID STATE
522	SECOND R COMP SW - NOT STOW	KCS522	SECOND RIGHT COMPRESSION RAMP STOW SWITCH (32S7)	RIGHT SIDE FS425	SPDT LIMIT SWITCH	OPEN/+28VDC	R RAMPS CAUTION LIGHT (69A1)	SECOND RIGHT COMPRESSION RAMP STOW SWITCH (32S7)	04P33	IWSFD FIG. 4 ZONE 24A	539	SOLID STATE
523	FIRST R TRAIL-NOT TRAIL	KCS523	FIRST RIGHT COMPRESSION RAMP TRAIL SWITCH (32S5)	RIGHT SIDE FS375	SPDT LIMIT SWITCH	OPEN/+28VDC	R RAMPS CAUTION LIGHT (69A1)	FIRST RIGHT COMPRESSION RAMP TRAIL SWITCH (32S5)	04P34	IWSFD FIG 4 ZONE 24B	539	SOLID STATE
524	FIRST L COMP SW - NOT STOW	KCS524	FIRST LEFT COMPRESSION RAMP STOW SWITCH (32S2)	LEFT SIDE FS375	SPDT LIMIT SWITCH	OPEN/+28VDC	L RAMPS CAUTION LIGHT (29A1)	FIRST LEFT COMPRESSION RAMP STOW SWITCH (32S2)	03P29	IWSFD FIG. 4 ZONE 24B	540	SOLID STATE
525	SECOND L COMP SW - NOT STOW	KCS525	SECOND LEFT COMPRESSION RAMP STOW SWITCH (32S3)	LEFT SIDE FS422	SPDT LIMIT SWITCH	OPEN/+28VDC	L RAMPS CAUTION LIGHT (69A1)	SECOND LEFT COMPRESSION RAMP STOW SWITCH (32S3)	05P23	IWSFD FIG. 4 ZONE 24C	540	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 46 SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
526	FIRST L TRAIL - NOT TRAIL	KCS526	FIRST LEFT COMPRESSION RAMP TRAIL SWITCH (32S1)	LEFT SIDE FS375	SPDT LIMIT SWITCH	OPEN/+28VDC	L. RAMPS CAUTION LIGHT (69A1)	FIRST LEFT COMPRESSION RAMP TRAIL SWITCH (32S1)	05P24	IWSPD FIG. 4 ZONE 24C	540	SOLID STATE
527	WING SWEEP DETENT SW ENGAGED	CKS527	WING SWEEP/FLAP AND SLAT CONTROL BOX (50A2)	FS540 WL175	DETENT ACTUATED LIMIT SWITCH	OPEN/+28VDC	K94 WING SWEEP DETENT P/O RGRB (772A1)	DETENT POSITION SWITCH P/O (50A2)	05P25	IWSPD FIG. 2 ZONE 25B	541	RESISTOR DIVIDER ADAPTER
528	LEFT WING SEAL DUMP VALVE - OPEN	QAS528	LEFT WING SEAL DUMP VALVE (50L3)	LEFT SIDE FS650	SOLENOID OPERATED CONTACTS	OPEN/+28VDC	K69 WING SWEEP ACT. INTLK (RGRB 772A1)	LEFT WING SEAL DUMP VALVE SW (50L3)	06P39	IWSPD FIG. 24 ZONE 43A	543	RESISTOR DIVIDER ADAPTER
529	RIGHT WING SEAL DUMP VALVE - OPEN	QAS529	RIGHT WING SEAL DUMP VALVE (50L2)	RIGHT SIDE FS650	SOLENOID OPERATED CONTACTS	OPEN/+28VDC	K69 WING SWEEP ACT. INTLK (RGRB 772A1)	RIGHT WING SEAL DUMP VALVE S2 (50L2)	07P39	IWSPD FIG 24 ZONE 43C	543	RESISTOR DIVIDER ADAPTER
530	RGEN CONTROL - NORM	POS530	MASTER GEN CONTROL PANEL (716A1)	PILOTS RIGHT SIDE CONSOLE FS225	DP3T SPRING LOADED TO ONE SIDE TOGGLE	OPEN/28VDC	K2 ACR MAIN PWR CONTACTOR (P/O 66A6) R. VOLT REG (66A2)	R (S2) P/O MASTER GEN CONTROL PANEL (716A1)	04P35	IWSPD FIG. 43 ZONE 6A, 7A	544	SOLID STATE
531	R. GEN CONTROL - TEST	POS531	MASTER GEN. CONTROL PANEL (716A1)	PILOTS RIGHT SIDE CONSOLE FS225	DP3T SPRING LOADED TOGGLE	OPEN/28VDC	RIGHT VOLTAGE REG. CONTROL (66A2) TEST RELAY	MASTER GEN CONTROL PANEL (716A1) R (S2)	04P36	IWSPD FIG. 43 ZONE 6A	545 546	SOLID STATE
532	R. GEN CONT PWR - ON	POS532	R VOLTAGE REG CONT (66A2) GEN CONTROL RELAY	LEFT SIDE FS375	N/A	OPEN/28VDC	TEST RELAY P/O (66A2)	N/A	05D34	IWSPD FIG. 43 ZONE 6A	544 545 546	EXTERNAL SIGNAL ADAPTER
533	L. GEN CONTROL - NORM	POS533	MASTER GEN CONTROL PANEL (716A1)	PILOTS RIGHT SIDE CONSOLE FS225	DP3T SPRING LOADED TO ONE SIDE TOGGLE	OPEN/28VDC	K1 AC L MAIN PWR COMPACTOR (66A6) L VOLTAGE REG (66A1)	L (S1) MASTER GEN CONT PANEL (716A1)	04P37	IWSPD FIG. 43 ZONE 6C, 7B	547	SOLID STATE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 46 SHEET 3

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
534	L. GEN CONTROL-TEST	POS534	MASTER GEN CONTROL PANEL (716A1)	PILOTS RIGHT SIDE CONSOLE FS225	DP3T SPRING LOADED TOGGLE	OPEN/28VDC	LEFT VOLTAGE REG CONTROL (66A1) TEST RELAY	MASTER GEN CONTROL PANEL (716A1) L(S1)	04P38	IWSFD FIG. 43 ZONE 6C	548 549	SOLID STATE
535	L. GEN CONT PWR - ON	POS535	L. VOLTAGE REG. CONT (66A1)	LEFT SIDE FS375	N/A	OPEN/28VDC	TEST RELAY P/O (66A1)	N/A	05D35	IWSFD FIG. 43 ZONE 6C	547 548 549	EXTERNAL SIGNAL ADAPTER
536	R. RECTIFIER PWR-ON	POS536	R. VOLTAGE REG. CONT (66A2)	LEFT SIDE FS375	N/A	OPEN/28VDC	RIGHT VOLTAGE REG. CONTROL (66A2)	N/A	05D36	IWSFD FIG. 43 ZONE 5B	544 545 546	EXTERNAL SIGNAL ADAPTER
537	L. RECTIFIER PWR - ON	POS537	L. VOLTAGE REG. CONT (66A1)	LEFT SIDE FS375	N/A	OPEN/28VDC	66A1	N/A	05D37	IWSFD FIG. 43 ZONE 5C	547 548 549	EXTERNAL SIGNAL ADAPTER
538	R. DC PWR - ON	PAS538	R. XFMR-RECT (67TR2)	FS405	N/A	GND/+28V	K1 R MAIN DC PWR CONTACTOR (67A3)	N/A	07D30	IWSFD FIG 43 ZONE 10A	550	EXTERNAL SIGNAL ADAPTER
539	L DC PWR - ON	PAS539	L. XFMR-RECT (67TR1)	FS395	N/A	GND/+28V	K2 L MAIN DC PWR CONTACTOR (67A3)	N/A	05D38	IWSFD FIG. 43 ZONE 10C, 10B	550 585	EXTERNAL SIGNAL ADAPTER
540	L. ENGINE OIL PRESSURE - LOW	EPS540	L. ENGINE OIL PRESSURE SW (70A2)	L. ENGINE FS700	SPST PRESSURE SWITCH	OPEN/GND	OIL PRESS INDIC (69A1)	N/A	06P40	NAVAIR 01-F14AAA-2-2-6-006 FIG. 2	551	RESISTOR DIVIDER ADAPTER
541	R. ENGINE OIL PRESSURE - LOW	EPS541	R. ENGINE OIL PRESSURE SW (70A2)	R. ENGINE FS700	SPST PRESSURE SWITCH	OPEN/GND	OIL PRESS INDIC (69A1)	N/A	07P40	NAVAIR 01-F14AAA-2-2-6-006 FIG. 2	551	RESISTOR DIVIDER ADAPTER
543	ICE PROBE - ON	HAS543	ICE-DETECTOR 39A1	LEFT INLET DUCT FS520 BL 61.5	N/A	28VDC/OPEN	ENGINE ANTI-ICE RELAY K4 NGSA (772A1)	N/A	05D39	NAVAIR-01-F14AAA-2-2-6-013 FIG. 2	553	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 46 SHEET 4

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
544	CANOPY SW - OPEN	DUS544	CANOPY SW - 70S1	FS394	SPDT LIMIT SWITCH	OPEN/+28V	CANOPY LIGHT P/O PILOT & NFO CAUTION/ ADVISORY IND (69A1, 69A2)	CANOPY SW (70S1)	03P30	NAVAIR-01-F14AAA-2-2-2-020 FIG. 2	554	SOLID STATE
545	PILOT OX PR - LOW	WHS545	OXYGEN PRESSURE WARNING SW (PILOT) 41S1	FS256	SPST PRES-SURE	OPEN/+28V	PILOT & NFO OXY LOW LAMP (69A1, 69A2)	PILOT OXY PRESS. SW (41S1)	03P31	NAVAIR-01-F14AAA-2-2-2-019 FIG. 2	555	SOLID STATE
546	NFO OX PR - LOW	WHS546	OXYGEN PRESSURE WARNING SW (NFO) 41S2	FS322	SPST PRES-SURE	OPEN/+28V	PILOT & NFO OXYGEN LAMP (69A1, 69A2)	NFO OXY PRESS. SW (41S2)	03P32	NAVAIR-01-F14AAA-2-2-2-019 FIG. 2	555	SOLID STATE
547	BOARDING LAD-DER - DN	DUS547	BOARDING LADDER WARNING SWITCH (70S2)	BOARDING LADDER LEFT SIDE FS281	SPDT LIMIT	OPEN/+28VDC	LADDER LIGHT (69A1)	70S2 BOARDING LADDER SW	03P33	NAVAIR 01-F14AAA-2-2-2-008 FIG. 2	556	SOLID STATE
548	COOLING AIR - OVERHEAT	HNS548	COOLING EFFECT CONTROLLER (44A1)	FS240	OVERHEAT RELAY CONTACTS	GND/+28VDC	OVERHEAT RELAY K2 (44A1) COOLING AIR IND (P/O 69A2)	N/A	03P34	IWSFD FIG. 32 ZONE 35A, 36A	557	RESISTOR DIVIDER ADAPTER
549	RADAR TEST EN-RADIATE & SCAN	SUS549	RADAR TEST ENABLE CONT. PANEL (27A37)	FS215	N/A	OPEN/+28V	RADAR EN LAMP (69A2)	N/A	07D31	NAVAIR-01-F14AAA-2-2-16A FIG. 5	558 738 739	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 46 SHEET 5

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
015	R-AICS HYDR-ON	DHS015	RIGHT AIR INLET CONTROL PROGRAMMER (32A7) (HYDRAULICS ON SIGNAL)		N/A	GND/OPEN	K59-R AICS HYD PRESS SOL (TIME DELAY) (RIGHT GLOVE RELAY BOX (772A1)	N/A	07D32	IWSFD FIG. 4 ZONE 16A	539	EXTERNAL SIGNAL ADAPTER
579	R-AICS-28VDC	DHS579	RIGHT AIR INLET CONTROL PROGRAMMER (32A7) (K59-28VDC)		N/A	28VDC	K59-R AICS HYD PRESS SOL (TIME DELAY) (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D33	IWSFD FIG. 4 ZONE 16A	539	EXTERNAL SIGNAL ADAPTER
580	L-AICS - HYDR-ON	DHS580	LEFT AIR INLET CONTROL PROGRAMMER (32A6) (HYDRAULICS ON SIGNAL)		N/A	GND/OPEN	K56 - L AICS HYD PRESS SOL (TIME DELAY) (RGRB 772A1)	N/A	05D40	IWSFD FIG. 4 ZONE 12A	540	EXTERNAL SIGNAL ADAPTER
581	L-AICS - 28VDC	DHS581	LEFT AIR INLET CONTROL PROGRAMMER (32A6) (K56-28VDC)		N/A	28VDC	K56 - L AICS HYD PRESS SOL (TIME DELAY RGRB 772A1)	N/A	05D41	IWSFD FIG. 4 ZONE 12A	540	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 46 SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
529	DC - 1 POLE	V= +28VDC	POWER TRANSFER RELAY & LOGIC CKTS P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				CH10 TR-ADVSY PLT ANN PNL AUX PWR P/O 8 DC ESS 2 CIRCUIT BREAKER PANEL (36A2)	07Q29	VAL529	IWSFD FIG. 46 ZONE 3A, 2A	529
530	ENABLE DRIVER	V= +28VDC	DIM SIGNAL - ON P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				P/O WHITE FLOOD S-3 P/O INSTRUMENT R-3 MASTER LIGHT CONTROL PANEL (713A1) CB34 (5A) DDI/ANN PNL DIM CONT 10 DC MAIN CIRCUIT BREAKER PANEL (36A4)	01D34	DUL 530	IWSFD FIG. 46 ZONE 3B, 2B	530
531	ENABLE DRIVER	V = +28VDC	DIM SIGNAL - ON P/O NFO CAUTION ADVISORY INDICATOR (69A2A1)				P/O WHITE FLOOD S2 P/O INSTRUMENT R1 D/L REPLY AND INTR LIGHT CONTROL PANEL (724A7) CB34 (5A) DDI/ANN PNL DIM CONT 10 DC MAIN CIRCUIT BREAKER PANEL (36A4)	01D35	DUL531	IWSFD FIG. 46 ZONE 14A, 13A, 2B	531
532	ENABLE DRIVER	V = +28VDC	LIGHTS TEST P/O NFO CAUTION ADVISORY INDICATOR (69A2A1)				S2 TEST PANEL (720A1) CB34 (5A) DDI/ANN PNL DIM CONT 10 DC MAIN CIRCUIT BREAKER PANEL (36A4)	01D36	DUL532	IWSFD FIG. 46 ZONE 13C, 2B	532

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 46 SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
535	DC - 1 POLE	V = +28VDC	L. AIR INLET CONTROL PROGRAMMER (32A6)				CB16 EMERG GEN TEST/ L AICS LKUP PWR (36A2)	01Q35	KAL535	IWSFD FIG. 4 - 9C, 1C	535
536	DC - 1 POLE	V = +28VDC	R. AIR INLET CONTROL PROGRAMMER (32A7)				CB15 ANTI-SMD/R AICS LKUP PWR (36A2)	05Q50	KAL536	IWSFD FIG. 4 ZONE 13C, 1B	536
539	LAMP DRIVER	V = +28VDC	R. RAMPS CAUTION LIGHT P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				R. STOW & TRAIL SWITCHES (32S6, 32S7, 32S8, 32S5) P/O K38 MLG HDL'G RGRB (772A1) P/O K59 R AICS HYD PRESS SOL RGRB (772A1) CB2 R AICS (35A6) CB15 R AICS LKUP (36A2) CB41 R AICS RAMP (36A1)	01D37	DUL539	IWSFD FIG. 46 ZONE 7A	539
540	LAMP DRIVER	V = +28VDC	L. RAMPS CAUTION LIGHT P/O PILOT CAUTION ADVISORY INDICATOR (69A1)				L. STOW & TRAIL SWITCHES (32S1, 32S2, 32S3, 32S4) P/O K90 MLG HDL 'H' LGRB (773A1) P/O K56 L AICS HYD PRESS SOL LGRB (773A1) CB3 L AICS (35A6) CB16 L AICS LKUP (36A2) CB42 L AICS RAMP (36A1)	01D38	DUL540	IWSFD FIG. 46 ZONE 7A	540

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 46 SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
541	ENABLE DRIVER	V = GND	P/O K94 WING SWEEP DETENT RGRB (772A1) WING SWEEP INDICATOR (26A1)				K94 WING SWEEP DETENT RGRB (772A1) DETENT POSITION SW P/O WING SWEEP/FLAT AND SLAT CONTROL BOX (50A2) CB2 WING POS IND DC (36A2)	01D39	DUL541	IWSFD FIG. 2 ZONE 1C, 22A 25B, 36B	541
542	RELAY DRIVER	V = +28VDC	LEFT & RIGHT WING SEAL DUMP VALVES (50L2, 50L3)				CB2 WING POS IND DC (36A2) P/O K68 WING SEAL P/O K12 MLG SAFETY K RGRB (772A1)	07Q38 03Q49	CKL542	IWSFD FIG. 2 ZONE 43A, 43C, 36C, 36B, 1C	542
543	LAMP DRIVER	V = 0 VDC (GND/OPEN)	HZ TAIL AUTH INDICATOR PILOT CAUTION PANEL (69A1)				K69 WING SWEEP ACT. INTLK K73 WING OVERSWEEP PWR K72 680 LOCKOUT RGRB (772A1) HORIZ TAIL RES. AUTH. SW (50S2) AFT STICK AUTH (50S3) P/O THROTTLE QUAD (711A1) HORIZ TAIL AUTH STOP SW (50S1)	01D40	DUL543	IWSFD FIG. 24 ZONE 38B, 37B, 36A, 36C, 38C, 43A, 43C, 20B, 1C	543
544	RELAY DRIVER	V = +28VDC	AC R. MAIN POWER CONTACTOR (K2) (66A6)				K(S2) - MASTER GEN CONT PANEL (716A1)	01Q36	POL544	IWSFD FIG. 43 ZONE 7B, 6A	544

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 46 SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
545	RELAY DRIVER	V = +28VDC	R. TEST RELAY P/O R. VOLT REG. CONT (66A2)				R(S2) P/O (716A1)		POL545	IWSFD FIG. 43 ZONE 6A,	545
546	LAMP DRIVER	V = +28VDC	R. GEN LAMP P/O PILOT CAUTION ADVISORY INDIC. (69A1)				P/O K2 AC R MAIN PWR CONT. (66A6) CB11 R. GEN CAUTION (36A2)	01D41	DUL546	IWSFD FIG. 43 ZONE 7A, 7B	546
547	RELAY DRIVER	V = +28VDC	AC L MAIN POWER CONTACTOR (K1) (66A6)				L(S1) - MASTER GEN CONT PANEL (716A1)	01Q37	POL547	IWSFD FIG. 43 ZONE 8B, 6C	547
548	RELAY DRIVER	V = +28VDC	L. TEST RELAY P/O R VOLT REG CONT (66A1)				L(S1) P/O (716A1)	06D31	POL548	IWSFD FIG. 43 ZONE 6C	548
549	LAMP DRIVER	V = +28VDC	L. GEN LAMP P/O PILOT CAUTION ADVISORY INDIC (69A1)				P/O K1 AC L MAIN PWR CONT (66A6) CB12 L GEN CAUTION (36A2)	01D42	DUL549	IWSFD FIG. 43 ZONE 7B, 6C	549
550	LAMP DRIVER	V = +28VDC	TRANS/RECT LAMP P/O PILOT CAUTION ADVISORY INDIC (67A1)				CB10 TR ADJUST/PLT ANN PNL AUX PWR (36A2)	01D43	DUL550	IWSFD FIG. 43 ZONE 12A, 11C, 10B, 10A	550
551	LAMP DRIVER	V = 0 VDC	OIL PRESS LAMP P/O PILOT CAUTION ADVISORY INDIC (69A1)					01D44	EPL551	NAVAIR 01-F14AAA-2-2-6 FIG. 2	551
552	LAMP DRIVER	V = +28VDC	LAUNCH BAR LAMP P/O PILOT CAUTION ADVISORY INDIC (69A1)					01D45	GDL552	IWSFD FIG. 46 ZONE 11A	552

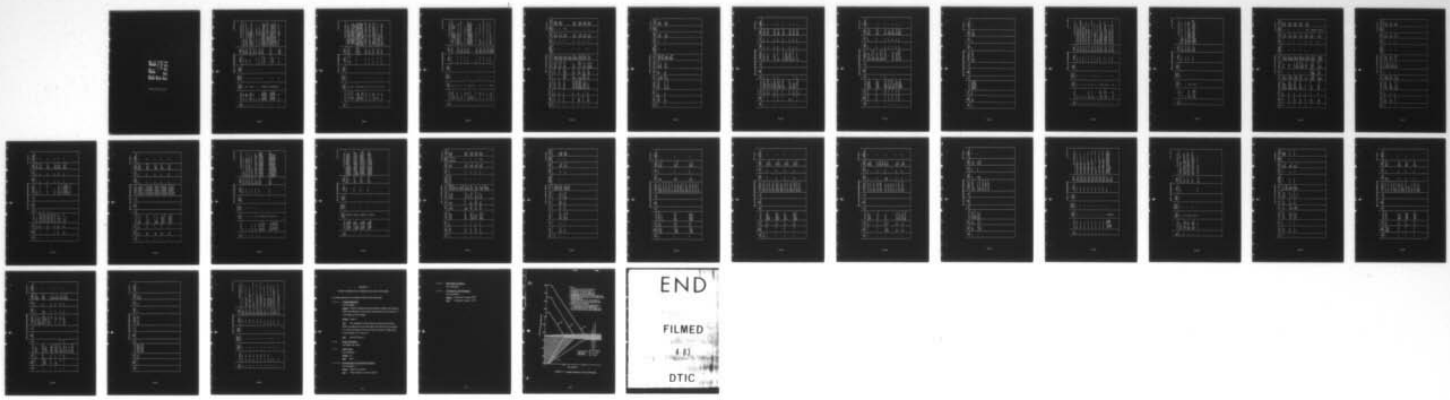
TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 46 SHEET 5

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
553	LAMP DRIVER	V = +28VDC	INLET ICE LAMP P/O PILOT CAUTION ADVISORY IND (69A1)				P/O ENGINE ANTI-ICE RELAY K4 P/O MSC START 'A' RELAY K3 RGS A (772A1) CB1 - (36A3) ENG ANTI-ICE VALVES CB13 - (36A3) ENG/PROBE ANTI-ICE	01D46	HAL553	NAVAIR 01-F14AAA-2-2-6 FIG. 2	553
554	LAMP DRIVER	V = +28VDC	CANOPY LIGHTS - P/O PILOT & NFO CAUTION/ADVISORY IND (69A1, 69A2)				CB34 (36A2) CAN/LAD/CAUTION/EJECT CANOPY IND (70S1)	01D47	DUL554	NAVAIR-01-F14AAA-2-2-5 FIG. 5	554
555	LAMP DRIVER	V = +28VDC	OXY LOW P/O PILOT & NFO CAUTION/ADVISORY IND (69A1, 69A2)				CB13 (36A2) OXY/BINGO CAUTION PILOT OXY PRESS. SW (41S1) NFO OXY PRESS. SW (41S2)	01D48	WHL555	NAVAIR-01-F14AAA-2-2-2 FIG. 2	555
556	LAMP DRIVER	V = +28VDC	LADDER LIGHT P/O PILOT PANEL (69A1)				CB34 (36A2) CAN/LAD/CAUTION EJECT CANOPY IND	01D49	DUL556	NAVAIR-01-F14AAA-2-2-3 FIG. 2	556
557	LAMP DRIVER	V = +28VDC	COOLING AIC - LIGHT P/O NFO PANEL (69A2)				P/O K2 OVERHEAT RELAY COOLING EFFECT CONTROLLER (44A1) CB10 (36A4) ELEC COOLING	01D50	HNL557	IWSFD FIG. 32 ZONE 36A, 35 35A	557
558	LAMP DRIVER	V = +28VDC	RDR EN LAMP P/O NFO PANEL (69A2)				K30 P/O RGRB (772A1)	01D51	SVL558	IWSFD FIG. 46 ZONE 16B NAVAIR-01-F14AAA-2-2-16A	558

AD-A047 860 ADVANCED AIRCRAFT ELECTRICAL SYSTEM (AAES) DEFINITION AND PROTOTYPE DESIG..(U) GRUMMAN AEROSPACE CORP BETHPAGE N Y G COTTER ET AL. JUL 76 4/4

UNCLASSIFIED NADC-76194-30-VOL-2 N62269-75-C-0392 F/G 9/3 NL



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

TABLE III F-14 SORTEL BOOLEAN EQUATIONS

FIGURE 46 SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
529	VAL529 = $\overline{DUL075}$	N/A	529	2	ESS. NO. 2 BUS	IWSFD FIG. 46 ZONE 3A, 2A	CONTROL POWER - ON = PILOT CAUTION/ADVISORY CONTROL POWER - NOT ON
530	DUL530 = $\overline{LHS506}$ • LHS505	505 506	530	3	R. MAIN BUS	IWSFD FIG. 46 ZONE 3B, 2B	PILOTS CAUTION ADVISORY INDICATOR DIM SIGNAL-ON = WHITE FLOOD-OFF AND INSTRUMENT K3 - ON
531	DUL531 = LHS500 •($\overline{LHS501}$ • $\overline{LHS502}$)	500 501 502	531	3	R. MAIN BUS	IWSFD FIG. 46 ZONE 14A, 13A, 2B	NFO CAUTION ADVISORY INDICATOR DIM SIGNAL - ON = INSTRUMENT LITING K1 - ON AND WHITE FLOOD - DIM NOT AND WHITE FLOOD - BRT NOT
532	DUL532 = DUS518	518	532	2		IWSFD FIG. 46 ZONE 13C, 2B	LIGHTS TEST - ON = IND LT - ON
535	KAL535	NA	535	2	ESS. NO. 2 BUS	IWSFD FIG. 4	LEFT AICS 28VDC - ON = 28VDC ESSENTIAL NO. 2 BUS - ON
536	KAL536	NA	536	1	ESS. NO. 2 BUS	IWSFD FIG. 4 ZONE 13C, 1B	RIGHT AICS 28VDC - ON = 28VDC ESSENTIAL NO. 2 BUS - ON
539	DUL539 = [(KCS521 + KCS522 + KCS118) • (GDS052 + KAS519)] + [(KCS118 +KCS523) • ($\overline{DHS013}$ +$\overline{DHS579}$)]	015 052 118 519 521 522 523 579	539	1	a) ESS. NO. 1 BUS b) K59 IS A TIME DELAY RELAY	IWSFD FIG. 4 ZONE 24A, 23A	RIGHT RAMPS CAUTION LIGHT - ON = [(FIRST R COMP SW - NOT STOW OR SECOND R COMP SW - NOT STOW OR R DIFFUSER RAMP SW - NOT STOW) AND (MAIN LANDING GEAR HANDLE - DOWN OR R AUTO/STOW - STOW)] OR [(R. DIFFUSER RAMP SW - NOT STOW OR FIRST R THAIL SW - NOT THAIL) AND (R-AICS HYDRAULICS - NOT ON OR R-AICS - 28VDC NOT)]
540	DUL540 = [(KCS524 + KCS525 + KCS112) • (GDS052 + KAS520)] +[(KDS112 + KCS526) • ($\overline{DHS580}$ + $\overline{DHS581}$)]	052 112 520 524 525 526 580 581	540	2	a) ESS. NO. 1 - BUS b) K56 IS A TIME DELAY RELAY	IWSFD FIG. 4 ZONE 24C, 23C	LEFT RAMPS CAUTION LIGHT - ON = [(FIRST L COMP SW - NOT STOW OR SECOND L COMP SW - NOT STOW OR L DIFFUSER RAMP SW - NOT STOW) AND (MLG HANDLE - DOWN OR L AUTO/STOW - STOW)] OR [(L DIFFUSER RAMP SW - NOT STOW OR FIRST L THAIL SW - NOT THAIL) AND (LAICS HYDR - NOT ON OR L AICS - 28VDC NOT)]
541	DUL541 = CKS527	527	541		ESS. NO. 2 BUS	IWSFD FIG. 2 ZONE 1C, 22A, 25B, 36B	DETENT ENGAGED - ON = WING SWEEP DETENT SWITCH - ENGAGED

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 46 SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
5A2	a) CKL5A2 = CKS027 • (GDS002 • GDS102) b) $\overline{CKL5A2}$ = CKS030 • $\overline{CKS027}$ • GDS002 • GDS102	002 102 027 027 030 002 102	5A2	2	a) ESS. NO. 2 BUS b) K68 IS A LATCHING RELAY	IWSFD FIG. 2 ZONE 43C, 43A, 36C, 36B, 1C	a) RIGHT AND LEFT WING SEAL DUMP VALVES - SET (ENERGIZED) = WING SWEEP HANDLE - RAISED 2.5 INCHES AND L AND R MLG WOW. b) RIGHT AND LEFT WING SEAL DUMP VALVES - RESET (DEENERGIZED) = WING SWEEP HANDLE POS. SW - < 68° AND WING SWEEP HANDLE POS. SW - LOWERED AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS
5A3	DUL5A3 = (CPS028 + CPS029) • [($\overline{GDS002}$ + $\overline{GDS102}$) + CPS026 (CKS027 + CKS030) + $\overline{CPS027}$ • CKS030 +(QAS528 + QAS529) • (CKS027 + CKS030)]	002 026 027 028 029 030 102 528 529	5A3	2	ESS. NO. 2 BUS	IWSFD FIG. 24 ZONE 36B, 37B, 36C, 36B, 36A 38C, 43C, 43A 20B, 1C	HZ TAIL AUTH LIGHT - ON = [HORIZ TAIL RESTRICTED AUTHORITY - RESTRICTED OR APT STICK AUTHORITY - REDUCED AUTHORITY] AND [WOW - NOT OR [HORIZ TAIL AUTH STOP SW - OPEN AND (WING SWP HANDLE - RAISED 2.5 INCHES OR WING SWEEP HANDLE - < 68°)] OR [WING SWP HANDLE - NOT RAISED 2.5 INCHES AND WING SWP HANDLE - < 68°] OR [LEFT AND RIGHT WING SEAL DUMP VALVES - OPEN AND (WING SWP HANDLE - RAISED 2.5 INCHES OR < 68°)]]
5A4	POL 5A4 = POS530 • POS532 • POS536	530 532 536	5A4	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 7B, 6A	ACR MAIN POWER - ON = R. GEN. CONTROL SW - NORM AND R. GEN CONT PWR - ON AND R. RECTIFIER PWR - ON
5A5	POL5A5 = POS531 • POS532 • POS536	531 532 536	5A5	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 6A	R. TEST RELAY - ENERGIZED = R. GEN. CONTROL SW - TEST AND R. GEN CONT PWR - ON AND R. RECTIFIER PWR - ON
5A6	DUL5A6 = $\overline{XAS003}$ • ($\overline{POS531}$ + $\overline{POS532}$ + $\overline{POS536}$)	003 531 532 536	5A6	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 7A, 7B	R. GEN LAMP - ON = NAC MAIN PWR CONTACTOR - NOT ON LINE AND (R. GEN CONTROL SW - NOT ON TEST OR R. GEN CONT PWR - OFF OR R. RECTIFIER PWR - OFF) AND 28 VDC ESS NO. 2 BUS - ON
5A7	POL5A7 = POS533 • POS535 • POS537	533 535 537	5A7	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 8B, 6C	AC L MAIN POWER - ON = L. GEN CONTROL SW - NORM AND L. GEN CONT PWR - ON AND L. RECTIFIER PWR - ON
5A8	POL5A8 = POS534 • POS535 • POS537	534 535 537	5A8	2	ESS. NO. 2 BUS	IWSFD FIG. 43 ZONE 6C	L. TEST RELAY - ENERGIZED = L. GEN. CONTROL SW - TEST AND L. GEN CONT PWR - ON AND L. RECTIFIER PWR - ON

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 46 SHEET 3

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
549	DUL549 = $\overline{XAS004}$ • ($\overline{POS\ 534}$ + $\overline{POS535}$ + $\overline{POS537}$)	004 534 535 537	549	2	ESS. NO. 2 BUS	IWSPD FIG. 43 ZONE 7B, 6C	L. GEN LAMP - ON = L AC MAIN PWR CONTACTOR - NOT ON LINE AND (L. GEN CONTROL SW - NOT ON TEST OR L. GEN CONT PWR - OFF OR L. RECTIFIER PWR - OFF) AND 28VDC ESS NO. 2 BUS - ON
550	DUL550 = $\overline{PAS538}$ + $\overline{PAS539}$	538 539	550	2	ESS. NO. 2 BUS	IWSPD FIG. 43 ZONE 12A, 11C 10B, 10A	TRANS/RECT LAMP - ON = LEFT OR RIGHT TRANSFORMER/RECTIFIER - OFF AND 28VDC ESS NO. 2 BUS - ON
551	EPL441 = EPS540 +EPS541	540 541	551	2	ESS. NO. 2 BUS	NAVAIR 01 - F14AAA-2-2-6 FIG. 2	OIL PRESS - ON = LEFT OR RIGHT ENGINE OIL PRESSURE - LOW
552	GDL552 = GDS002 • GDS102	002 102	552	2	ESS. NO. 2 BUS	IWSPD FIG. 46 ZONE 11A	LAUNCH BAR LAMP - ON = L AND R MLG - WOW
553	HAL553 = HAS006 •(KKS131 + KKS133 + KKS135) •(KKS132 +KKS134 + KKS136) +HAS543	006 131 132 133 134 135 136 543	553	2	ESS. NO. 2 BUS	NAVAIR 01 - F14AAA-2-2-6 FIG. 2	INLET ICE LAMP - ON = ENGINE/PROBES ANTI-ICE SW - ORIDE AND (LEFT ENGINE - CRANK OR L. ENGINE AUTO RESTART SW - CLOSED OR L. ENGINE CUTOFF SW, - CLOSED) AND (RIGHT ENGINE - CRANK OR R. ENGINE AUTO RESTART SW CLOSED OR R. ENGINE CUTOFF SW - CLOSED) OR ICE PROBE - ON
554	DUL554 = DUS544	544	554	2	AMCS BUS	NAVAIR 01 - F14AAA-2-2-2 FIG. 5	CANOPY LIGHT - ON = CANOPY SW - OPEN
555	WHL555 = WHS545 + WHS546	545 546	555	2	ESS. NO. 2 BUS	NAVAIR 01 - F14-AAA-2-2-2 FIG. 2	OXY LOW LIGHT - ON = PILOT OR NPO OXY PRESS. SW - LOW
556	DUL556 = DUS547	547	556	2	ESS. NO. 2 BUS	NAVAIR 01 - F14-AAA-2-2-3 FIG. 2	LADDER LIGHT - ON = BOARDING LADDER WARNING SWITCH - ON
557	HNL557 = HNS 548	548	557	3	L. MAIN BUS	IWSPD FIG. 32 ZONE 36A, 35A	COOLING AIR LIGHT - ON = COOLING AIR - OVERHEAT
558	SVL558 = SVS549 + GDS002 • GDS102	549 002 102	558	2	ESS. NO. 2 BUS	IWSPD FIG. 46 ZONE 16B NAVAIR 01 - F14AAA-2-2-16A FIG. 5	RDR EN LAMP - ON = RADAR TEST EN-RADIATE & SCAN AND L AND R MLG WOW

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 1A SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
700	LEFT-TOOL IN	TES700	LEFT LOAD SAFETY SWITCH (25S3)	FS770	LIMIT SWITCH	TOOL IN = OPEN $\overline{\text{TOOL IN}}$ = SW 28VDC	LEFT SEQUENCER SWITCH (25S1)	N/A	06P41	IWSPD FIG. 1A ZONE 42A	708	RESISTOR DIVIDER ADAPTER
701	RIGHT-TOOL IN	TES701	RIGHT LOAD SAFETY SWITCH (25S4)	FS770	LIMIT SWITCH	TOOL IN = OPEN $\overline{\text{TOOL IN}}$ = SW 28VDC	RIGHT SEQUENCER SWITCH (25S2)	N/A	07P41	IWSPD FIG. 1A ZONE 42C	709	RESISTOR DIVIDER ADAPTER
702	ALE-29-SELECTED	TES702	SYS TEST/SYS-PWR PANEL (790A1)	NPO LEFT KNEE PANEL FS300	10 POSITION ROTARY - PUSH TEST	ALE-29 = SW. 28 $\overline{\text{ALE-29}}$ = OPEN	LEFT SEQUENCER SWITCH (25S1) RIGHT SEQUENCER SWITCH (25S2)		03P35	IWSPD FIG. 1A ZONE 41A	708 709 715	
703	ALQ-100-NO GO	TES703	ALQ-100 RECEIVER-TRANSMITTER (23A3) (ALQ-100 RECEIVER-TRANSMITTER STATUS)	RIGHT SIDE FS300 WL140	LAMP DRIVER SIGNAL	GND = NO GO OPEN = TO	DECM CONTROL PANEL (23A2) STANDBY LITE	N/A	07D34	IWSPD FIG. 1A ZONE 33A	711	EXTERNAL SIGNAL ADAPTER
704	STANDBY-INDICATION	TES704	ALQ-100 RECEIVER-TRANSMITTER (23A3) STANDBY INDICATION STATUS	RIGHT SIDE FS300 WL140	LAMP DRIVER SIGNAL	GND = STANDBY OPEN = $\overline{\text{STANDBY}}$	DECM CONTROL PANEL (23A2) STANDBY LITE	N/A	07D35	IWSPD FIG. 1A ZONE 33A	711	EXTERNAL SIGNAL ADAPTER
705	LAMP TEST-GND	LCS705	NPO CAUTION-ADVISORY INDICATOR (69A2A1) LAMP TEST GND	NPO RIGHT KNEE PANEL FS300	LAMP DRIVER SIGNAL	TEST = GND $\overline{\text{TEST}}$ = OPEN	DECM PANEL (23A2) STANDBY LITE	N/A	07D36	IWSPD FIG. 1A ZONE 28C	711	EXTERNAL SIGNAL ADAPTER
706	MISSILE-ALERT/LAUNCH	TES706	APR27 RECEIVER (22A6)	LEFT SIDE FS375	RELAY DRIVER SIGNAL	ALERT/LAUNCH = GND $\overline{\text{ALERT/LAUNCH}}$ = OPEN	DECM CONTROL PANEL (23A2)	N/A	03P36	IWSPD FIG. 1A ZONE 23A	712	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOBTEL SIGNAL TRANSDUCERS

FIGURE 1A SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
707	PILOT DISPENSE COMMAND-ENABLE	TES707	CHAFF/FLARE DISPENSE PANEL (25A2)	NFO RIGHT SIDE CONSOLE FS300	ENABLE SIGNAL	ENABLE=SWITCHED 28VDC $\overline{\text{ENABLE}}$=OPEN	CHAFF/FLARE DISPENSE PANEL (25A2 (RIGHT DISPENSE CMD)	N/A	07D37	IWSFD FIG. 1A ZONE 37B	714	EXTERNAL SIGNAL ADAPTER
708	REPEAT MODE - SELECT	TES708	DECM CONTROL PANEL (23A2) REPEAT MODE SELECT GND)	NFO RIGHT SIDE CONSOLE FS300	ENABLE SIGNAL	SELECT=GND $\overline{\text{SELECT}}$=OPEN	ALQ-100 RECEIVER-TRANSMITTER (23A3) RECEIVE (REPEAT/TEST) MODE SELECT GND)	N/A	07D38	IWSFD FIG. 1A ZONE 29C	715	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1A SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
700	AC - 1 POLE	V=115VAC ϕA I=10A	ALQ-100 RECEIVER-TRANSMITTER (23A3) (115VAC ϕA)	100%			CB27 (10A) ALQ-100 PH. A (35A1)	05Q11	TEL700	IWSPD FIG. 2A ZONE 1B, 3AB	700
701	AC- 1 POLE	V=115VAC ϕB I = 10A	1) ALQ-100 RECEIVER-TRANSMITTER (23A3) (115VAC ϕB) 2) ALQ-100 RF SWITCH (23A4)	100%			CB24 (10A) ALQ-100 PH. B (35A1)	05Q12	TEL701	IWSPD FIG. 1A ZONE 1B, 3AB	701
702	AC - 1 POLE	V=115VAC ϕC I = 10A	ALQ-100 RECEIVER - TRANSMITTER (23A3) (115VAC ϕC)	100%			CB21 (10A) ALQ-100 PH. C (35A1)	05Q13	TEL702	IWSPD FIG. 1A ZONE 1B, 3AB	702
703	RELAY DRIVER	V = 28VDC	INITIATOR, DESTRUCT IGNITER (23A1) (IDI) (28VDC SAFE ENABLE)	100%			CB20 (7.5A) ECM DESTR (36A1)	06Q23	TEL703	IWSPD FIG. 1A ZONE 1C, 35B	703
704	DC - 1 POLE	V=28VDC	INITIATOR DESTRUCT IGNITER (23A1) (IDI (28VDC)				CB20 (7.5A) ECM DESTR (36A1) P/O K20 MLG SAFETY M (LEFT GLOVE RELAY BOX 773A1)	05Q25	TEL704	IWSPD FIG. 1A ZONE 1C, 35B	704
705	ENABLE SIGNAL	OPEN/GND	INITIATOR -DESTRUCT IGNITER (23A1) (IDI)				P/O K20 MLG SAFETY M (LEFT GLOVE RELAY BOX 773A1)	06Q24	TEL705	IWSPD FIG. 1A ZONE 1C, 34C	705
706	AC - 1 POLE	V=115VAC ϕB I = 3A	INTERFERENCE BLANKER (27A1) (115VAC ϕB)	100%			CB27 (3A INTRF BLANKER (35AA)	01Q46	TEL706	IWSPD FIG. 1A ZONE 2C, 10A	706
707	AC - 1 POLE	V=115VAC ϕB I = 3A	ECM CONTROL PANEL (22A7) (115VAC ϕB)	100%			CB11 (3A) AN/AFR-25 (33A5)	07Q01	TEL707	IWSPD FIG. 1A ZONE 2C, 17B	707

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1A SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
708	ENABLE SIGNAL	V = 28VDC	LEFT SEQUENCER SWITCH (25S1) FIRE ENABLE/GND TEST				CB43(15A) ALE-29 SEQ 1 & 2 SQUIBS (36A4) F/O K53 LANDING GEAR INTLK (RIGHT GLOVE RELAY BOX 772A1)	09Q01	TEL708	IWSFD FIG. 1A ZONE 3C, 39C 42A, 43A	708
709	ENABLE SIGNAL	V = 28VDC	RIGHT SEQUENCER SWITCH (25S2) FIRE ENABLE/GND TST				CB43 (15A) ALE-29 SEQ 1 & 2 SQUIBS (36A4) F/O K53 LANDING GEAR INTLK (RIGHT GLOVE RELAY BOX 772A1)	10Q01	TEL 709	IWSFD FIG. 1A ZONE 3C, 39C 41A, 42C, 43C	709
710	DC - 1 POLE	V = 28VDC I = 5A	CHAFF/FLARE DISPENSE PANEL (25A2) (28VDC)	100%			CB44 (5A) ALE-29 CHAFF/FLARE DISP (36A4)	07Q02	TEL710	IWSFD FIG. 1A ZONE 3C, 37B	710
711	LAMP DRIVER	V = 28VDC	DECM CONTROL PANEL (23A2) STANDBY LITE 28VDC				N/A	02D09	TEL711	IWSFD FIG. 1A ZONE 29C 28C, 33A	711
712	RELAY DRIVER	V = 28VDC	DECM CONTROL PANEL (23A2) MA/ML SIGNAL				CB19(5A) AN/ALQ-50 (AN/APR-27) (36A4)	02D10	TEL712	IWSFD FIG. 1A ZONE 3C, 28A 29C	712
713	DC - 1 POLE	V = 28VDC	ECM CONTROL PANEL (23A2) (28VDC)				CB19(5A) AN/ALQ-50 (AN/APR-27) (36A4)	07Q03	TEL713	IWSFD FIG. 1A ZONE 3C, 17B	713
714	ENABLE SIGNAL	B = 28VDC	CHAFF/FLARE DISPENSE PANEL 25A2) (PILOT DISPENSE COMMAND)				P/O K60 - FLAPS DOWN (RIGHT GLOVE RELAY BOX 772A1)	02D11	TEL714	IWSFD FIG. 1A ZONE 37A, 37B 39C, 40C	714

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 1A SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
715	ENABLE SIGNAL	GND/OPEN	AIQ-100 RECEIVER - TRANSMITTER (23A3) (REPEAT MODE SELECT - GND OR REPEAT GND TEST CAPABILITY)				P/O K31 - MLG SAFETY D (RIGHT GLOVE RELAY BOX 772A1)	06D11	TEL715	IWSPD FIG. 1A ZONE 33A, 31A 30A, 29C	715

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1A SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
700	TEL700	N/A	700	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 1B, 34B	ALQ-100 RECEIVER-TRANSMITTER (115VAC ϕA) = 115VAC ϕA RIGHT MAIN BUS-ENERGIZED
701	TEL701	N/A	701	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 1B, 34B	ALQ-100 RECEIVER-TRANSMITTER AND ALQ-100 RF SIWTCH (115VACϕB) = 115VAC ϕB RIGHT MAIN BUS - ENERGIZED
702	TEL702	N/A	702	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 1C, 34B	ALQ-100 RECEIVER-TRANSMITTER (115VAC ϕC) = 115VAC ϕC RIGHT MAIN BUS - ENERGIZED
703	TEL703	N/A	703	1	ESS. NO. 1 BUS	IWSPD FIG. 1A ZONE 1C, 35B	INITIATOR DESTRUCT IGNITER (28VDC SAFE ENABLE) = 28VDC ESS NO. 1 BUS - ENERGIZED
704	TEL704 = $\overline{GDS002}$ + $\overline{GDS102}$	002 102	704	1	ESS No. 1 BUS	IWSPD FIG. 1A ZONE 1C, 35B	INITIATOR DESTRUCT IGNITER (28VDC) = LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT
705	TEL705 = GDS002 • GDS102	002 102	705	1	ESS. NO. 1 BUS	IWSPD FIG. 1A ZONE 1C, 34C	SAFE (GND) = LEFT AND RIGHT MLG - WEIGHT ON WHEELS
706	TEL706	N/A	706	2	ESS. NO. 2 BUS	IWSPD FIG. 1A ZONE 2C, 10A	INTERFERENCE BLANKER (115VAC ϕB) = 115VAC ϕB ESS. NO. 2 BUS-ENERGIZED
707	TEL707	N/A	707	3	L. MAIN BUS	IWSPD FIG. 1A ZONE 2C, 17B	ECM CONTROL PANEL (115VAC ϕB LEFT MAIN BUS - ENERGIZED
708	TEL708 = ($\overline{GDS052}$ • TES700) + (TES702 •MJS055)	052 055 700 702	708	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 3C, 39C 41A, 42A, 43A	LEFT SEQUENCER SWITCH - FIRE ENABLE OR GND TEST = MLG HANDLE-UP AND LEFT - TOOL IN OR ALE-29 - SELECTED AND $\overline{TEST}$-DEPRESSED
709	TEL709 = ($\overline{GDS052}$ • TES701) + (TES702 • MJS055)	052 055 701 702	709	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 3C, 39C 41A, 42C, 43C	RIGHT SEQUENCER SWITCH - FIRE ENABLE OR GND TEST = MLG HANDLE-UP AND RIGHT - TOOL IN OR ALE-29 - SELECTED AND $\overline{TEST}$ - DEPRESSED
710	TEL710	N/A	710	3	R. MAIN BUS	IWSPD FIG. 1A ZONE 3C, 37B	CHAFF/FLARE DISPENSE PANEL (28VDC) = 28VDC RIGHT MAIN BUS - ENERGIZED
711	TEL711 = TES703 +TES704 + LCS705	703 704 705	711	3	R. MAIN BUS	IWSPD FIG. 1A ZONE, 29C, 28C, 33A	DECM CONTROL PANEL - STANDBY LITE = ALQ100 - NO GO OR STANDBY-INDICATION OR LAMP TEST - GND

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 1A SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
712	TEL712 = TES706	706	712	3	L. MAIN BUS	IWSFD FIG. 1A ZONE 3C, 28A 29C	DECM CONTROL PANEL - MA/ML SIGNAL = MISSILE - ALERT/LAUNCH
713	TEL713	N/A	713	3	L. MAIN BUS	IWSFD FIG. 1A ZONE 3C, 17B	ECM CONTROL PANEL (28VDC) = 28VDC LEFT MAIN BUS - ENERGIZED
714	TEL714 = TES707 • TMS219 • (CGS217 + CGS218)	217 218 219 707	714	3	R. MAIN BUS	IWSFD FIG. 1A ZONE 37A, 37B 39C, 40C	PILOT DISPENSE COMMAND (28VDC) = PILOT DISPENSE COMMAND - ENABLE AND DLC ENGAGE CHAFF DISPENSE - ON AND LEFT OR RIGHT FLAP - ≥ 25°
715	TEL715 = TES708 • [($\overline{GDS002}$ + $\overline{GDS102}$) + (TES702 • MJS055)]	002 055 102 702 708	715	3	R. MAIN BUS	IWSFD FIG. 1A ZONE 33A, 31A 30A, 29C	ALQ-100 RECEIVER-TRANSMITTER - RECEIVE MODE SELECT = REPEAT MODE-SELECT AND (LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT) OR ($\overline{ALE-29}$ - SELECTED AND TEST DEPRESSED)

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3A SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
709	NFO ASW27 -ON	RPS709	NFO MAIN-DATA LINK CONTROL PANEL (15A2) (ASW27-ON/OFF)	NFO LEFT SIDE CONSOLE FS300	N/A	ON = GND OFF=OPEN	DATA LINK CONVERTER (13A1) (POWER ON/OFF)	N/A	05D42	IWSPD FIG. 3A ZONE 3B	719	EXTERNAL SIGNAL ADAPTER
710	PILOT ASW27 - ON	RPS710	PILOT MAIN-DATA LINK CONTROL PANEL (15A1) (ASW27-ON/OFF)	PILOTS LEFT SIDE CONSOLE FS225	N/A	ON = GND OFF=OPEN	DATA LINK CONVERTER (13A1) (POWER ON/OFF)	N/A	05D43	IWSPD FIG. 3A ZONE 4B	719	EXTERNAL SIGNAL ADAPTER
711	PILOT-FORCED REPLY	RPS711	PILOT MAIN-DATA LINK CONTROL PANEL (15A1)	PILOTS LEFT SIDE CONSOLE FS225	N/A	FORCED REPLY = GND $\overline{\text{FORCED REPLY}}$ = 28V/4.7	DATA LINK CONVERTER (13A1) (FORCED REPLY)	N/A	05D44	IWSPD FIG. 3A ZONE 4C, 9B, 10C	721	EXTERNAL SIGNAL ADAPTER
712	NFO-FORCED REPLY	RPS712	NFO MAIN-DATA LINK CONTROL PANEL (15A2)	NFO LEFT SIDE CONSOL FS 300	N/A	FORCED REPLY = GND $\overline{\text{FORCED REPLY}}$ = 28V/4.7K	DATA LINK CONVERTER (13A1) (FORCED REPLY)	N/A	05D45	IWSPD FIG. 3A 9B, 10C	721	EXTERNAL SIGNAL ADAPTER
713	CAINS-ALIGN	RPS713	CSDC (07A1)	FS360 WL150	N/A	ALIGN-28VDC $\overline{\text{ALIGN}}$ = OPEN	K33-DATA LINK B (LEFT GLOVE RELAY BOX 773A1)	N/A	07D39	IWSPD FIG. 3A ZONE 37C, 9B	723 725 726	EXTERNAL SIGNAL ADAPTER
714	D/L RAD-SELECTED	RPS714	MASTER TEST PANEL (734A1)	PILOTS RIGHT SIDE CONSOLE FS225	12 POSITION ROTARY SWITCH WITH PUSH FOR TEST	D/L RAD = SWITCHED 28VDC $\overline{\text{D/L RAD}}$=OPEN	K35-DATA LINK D (LEFT GLOVE RELAY BOX 773A1)		07D40	IWSPD FIG. 3A ZONE 7C	720 721 722 723 724 725 726	
715	ASW27 - SELECTED	RPS715	SYS TEST - SYS PWR PANEL (790A1)	NFO LEFT KNEE PANEL FS300	10 POSITION ROTARY SWITCH	ASW27 =SWITCHED 28VDC $\overline{\text{ASW27}}$ = OPEN	K77-DATA LINK TEST (LEFT GLOVE RELAY BOX 773A1)		03F37	IWSPD FIG. 3A ZONE 7C	721 722 723 724 725 726	

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 3A SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
716	PILOT-CANCEL REPLY	RPS716	PILOT MAIN DATA LINK CONTROL PANEL (15A1)	PILOTS LEFT SIDE CONSOLE PS225	N/A	CANCEL REPLY = GND $\overline{\text{CANCEL REPLY}}$ = 28V/4.7K	DATA LINK CONVERTER (13A1)	N/A	05D46	IWSPD FIG. 3A ZONE 4C	722	EXTERNAL SIGNAL ADAPTER
717	NFO-CANCEL REPLY	RPS717	NFO MAIN DATA LINK CONTROL PANEL (15A2)	NFO LEFT SIDE CONSOLE PS300	N/A	CANCEL REPLY = GND $\overline{\text{CANCEL REPLY}}$ = 28V/4.7K	DATA LINK CONVERTER (13A1)	N/A	05D47	IWSPD FIG. 3A ZONE 3C	722	EXTERNAL SIGNAL ADAPTER
718	MASTER-EMERG	SXS718	IFF CONTROL PANEL (09A1) (MASTER SWITCH)	NFO RIGHT SIDE CONSOLE PS300	N/A	EMERG.=GND $\overline{\text{EMERG}}$ = OPEN	CSDC (07A1) (IFF EMERG)	N/A	07D41	IWSPD FIG. 3A ZONE 4GB	721	EXTERNAL SIGNAL ADAPTER

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 3A SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
716	AC - 1 POLE	V=115VAC ϕA I=3A	DDI (13A2) (115VAC PH. A)	100%			CB13(3A) DDI AC (35A5)	07Q07	RPL716	IWSPD FIG. 3A AONE 53A, 1A	716
717	DC - 1 POLE	V=28VDC I=5A	a) NFO MAIN-DATA LIN LINK CONTROL PANEL (15A2) (DDI-28VDC)	100%			CB17(5A) DDI DC (36A4)	07Q08	RPL717	IWSPD FIG. 3A ZONE 1B, 2B 4C	717
			b) PILOT MAIN-DATA LINK CONTROL PANEL (15A1) (DDI-28VDC)	100%							
718	DC - 1 POLE	V=28VDC I=3A	a) NFO MAIN-DATA LINK CONTROL PANEL (15A2)(ASW-27 28VDC)	100%			CB18(3A) AAW-27 (36A4)	02D20	RPL718	IWSPD FIG. 3A ZONE 1A, 2B 4C	718
			b) PILOT MAIN-DATA LINK CONTROL PANEL (15A1)(ASW-27 28VDC)	100%							
719	AC-1POLE	V-115VAC ϕA	DATA LINK CONVERTER (13A1)(115VAC ϕA)				CB6(5A) ASW-27 (35A5)	01Q20	RPL719	IWSPD FIG. 3A ZONE 2A, 3B 4B, 10A	719
720	ENABLE SIGNAL	GND/28V - 4.7K	DATA LINK CONVERTER (13A1) RADIATED TEST SELECT				P/O K35 DATA LINK D (LEFT GLOVE RELAY BOX 773A1) CB18(3A) ASW 27 (36A4)	04D09	RPL720	IWSPD FIG. 3A ZONE 1A, 7C 9C, 10C	720
721	ENABLE SIGNAL	GND/28V-4.7K	DATA LINK CONVERTER (13A1) (FORCED REPLY)				P/O K34 DATA LINK C P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 MLG SAFETY H (LEFT GLOVE RELAY BOX 773A1) CB18(3A) ASW27 (36A4)	04D10	RPL721	IWSPD FIG. 3A ZONE 10C, 9 7C, 4C, 3C,1A	721

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 3A SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
722	ENABLE SIGNAL	GND/28V-4.7K	DATA LINK CONVERTER (13A1) (CANCEL REPLY)				P/O K34 DATA LINK C P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 MLG SAFETY H (LEFT GLOVE RELAY BOX 773A1) CB18(3A) ASM27 (36A4)	04D11	RPL722	IWSPD FIG.3A ZONE 10C, 9 7C, 4C, 3C, 1A	722
723	ENABLE SIGNAL	GND/28V-4.7K	DATA LINK CONVERTER (13A1) (UTM SELECT)				CB18(3A) ASM27 (36A4) P/O K33 DATA LINK B P/O K34 DATA LINK C P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 M26 SAFETY H (LEFT GLOVE RELAY BOX 773A1)	04D12	RPL 723	IWSPD FIG. 3A ZONE 37C, 10B 9, 7C, 1A	723
724	ENABLE SIGNAL	28V/OPEN	DATA LINK CONVERTER (13A1) (HARDUNE CAINS SELECT)				CB18(3A) ASM27 (36A4) P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 MLG SAFETY H (LEFT GLOVE RELAY BOX 773A1)	04D13	RPL724	IWSPD FIG.3A ZONE 10B, 9 7C, 1A	724
725	ENABLE SIGNAL	28V/OPEN	SHIPBOARD USQ-2B/ SSW-1C COMPUTER DATA TERMINAL (ALIGN DATA SELECT)				CB18(3A) ASM27 (36A4) P/O K33 DATA LINK B P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 MLG SAFETY H (LEFT GLOVE RELAY BOX 773A1)	02D21	RPL725	IWSPD FIG. 3A ZONE 9, 7C 1A	725
726	ENABLE SIGNAL	28V/OPEN	SHIPBOARD USQ-2B/ SSW-1C COMPUTER DATA TERMINAL (WAY POINT DATA SELECT)				CB18(3A) ASM27 (36A4) P/O K33 DATA LINK B P/O K35 DATA LINK D P/O K77 DATA LINK TEST P/O K22 MLG SAFETY H (LEFT GLOVE RELAY BOX 773A1)	02D26	RPL726	IWSPD FIG.3A ZONE 9, 7C, 1A	726

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3A SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
716	RPL716	N/A	716	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 53A, 1A	DDI-115VAC ϕA = 115VAC ϕA LEFT MAIN BUS - ENERGIZED
717	RPL717	N/A	717	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 1B, 2B, 4C	NFO AND PILOT'S MAIN DATA LINK CONTROL PANEL -DDI 28VDC = 28VDC LEFT MAIN BUS - ENERGIZED
718	RPL718	N/A	718	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 1A, 2B, 4C	NFO AND PILOT'S MAIN DATA LINK CONTROL PANEL -ASW-27 28VDC = 28VDC LEFT MAIN BUS - ENERGIZED
719	RPL719 = RPS709 + RPS710	709 710	719	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 1A, 3B, 4B 10A	DATA LINK CONVERTER - 115VAC ϕA = NFO OR PILOT ASW27 PWR - ON
720	RPL720 = RPS714 • MJS068	068 714	720	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 2A, 7C 9C, 10C	DATA LINK CONVERTER - RADIATED TEST SELECTED (GND) = D/L RAD-SELECTED AND TEST SELECTOR - DEPRESSED
721	RPL721 = (RPS711 + RPS712 + WPS013 + SXS718) • [(MJS055 • RAS715) + (MJS068 • RPS714) + ($\overline{GDS002}$ + $\overline{GDS102}$)]	002 013 055 068 102 711 712 714 715 718	721	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 10C, 9, 7C, 4C, 3C, 1A	DATA LINK CONVERTER - FORCED REPLY (GND) = (PILOT OR NFO - FORCED REPLY OR PILOT EJECT - EJECT OR MASTER - EMERG) AND [(TEST-DEPRESSED AND ASW27 - SELECTED) OR (TEST SELECTOR-DEPRESSED AND D/L RAD - SELECTED) OR (LEFT OR RIGHT MLG - WEIGHT NOT ON WHEELS)]
722	RPL722 = [[(RPS716 + RPS717) • [(MJS055 • RPS715) + (MJS068 • RPS714) + ($\overline{GDS002}$ + $\overline{GDS102}$)]] + [(MJS055 + $\overline{RPS715}$) • ($\overline{MJS068}$ + $\overline{RPS714}$) • (GDS002 • GDS102)]	002 055 068 102 714 715 716 717	722	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 10C, 9, 7C, 4C, 3C, 1A	DATA LINK CONVERTER - CANCEL REPLY (GND) = [[PILOT OR NFO - CANCAL REPLY) AND [(TEST-DEPRESSED AND ASW27 - SELECTED) OR (TEST SELECTOR-DEPRESSED AND D/L RAD - SELECTED) OR (LEFT OR RIGHT MLG - WEIGHT NOT ON WHEELS)]] OR [TEST-NOT DEPRESSED OR ASW27 - NOT SELECTED) AND (TEST SELECTOR - NOT DEPRESSED OR D/L RAD - NOT SELECTED) AND (LEFT AND RIGHT MLG - WEIGHT ON WHEELS)]

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 3A SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
723	RPL723 = RPS713 • [(MJS055 + RPS715) • (MJS068 + RPS714) • (GDS002 • GDS102)]	002 055 068 102 713 714 715	723	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 37C, 10B 9, 7C, 1A	DATA LINK CONVERTER - UTM SELECT (GND) = CAINS - ALIGN AND [(TEST - NOT DEPRESSED OR ASM27 - NOT SELECTED) AND (TEST SELECTOR - NOT DEPRESSED OR D/L RAD - NOT SELECTED) AND (LEFT AND RIGHT MLG - WEIGHT ON WHEELS)]
724	RPL724 = (MJS055 + RPS715) • (MJS068 + RPS714) • (GDS002 • GDS102)	002 055 068 102 714 715	724	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 10B, 9, 7C 1A	DATA LINK CONVERTER - HARDUNE CAINS SELECT (28VDC) = (TEST- NOT DEPRESSED OR ASM27 - NOT SELECTED) AND (TEST SELECTOR - NOT DEPRESSED OR D/L RAD - NOT SELECTED) AND (LEFT AND RIGHT MLG - WEIGHT ON WHEELS)
725	RPL725 = RPS713 • (MJS055 + RPS715) • (MJS068 + PRS714) • (GDS002 • GDS102)	002 055 068 102 713 714 715	725	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 37C, 10A 9, 7C, 1A	SHIPBOARD USQ-28/SSM-1C COMPUTER DATA TERMINAL - ALIGN DATA SELECT = CAINS - ALIGN AND (TEST - NOT DEPRESSED OR ASM27 - NOT SELECTED) AND (TEST SELECTOR - NOT DEPRESSED OR D/L RAD - NOT SELECTED) AND (LEFT AND RIGHT MLG - WEIGHT ON WHEELS)
726	RPL726 = RPS713 +[(MJS055 • ROS715) + (MJS068 • RPS714) + (GDS002 + GDS102)]	002 055 068 102 713 714 715	726	3	L. MAIN BUS	IWSFD FIG. 3A ZONE 3K, 10A,9 7C, 1A	SHIPBOARD USQ-28/SSM-1C COMPUTER DATA TERMINAL - WAYPOINT DATA SELECT = CAINS - ALIGN NOT OR [(TEST - DEPRESSED AND ASM27 - SELECTED) OR (TEST SELECTOR - NOT DEPRESSED OR D/L RAD-SELECTED) OR (LEFT OR RIGHT MLG - WEIGHT ON WHEELS NOT)]

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 4A SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
719	WCS-STBY/XMIT ON SELECT	TBS719	F/O HAND CONTROL (27A20) (56) (WCS SWITCH)	NFO CENTER CONSOLE FS300	RELAY DRIVER SIGNAL	STBY/XMIT ON SELECT = SWITCHED 28V OFF = OPEN	K1 CONTROL AND DISPLAY POWER RELAY (PMS RELAY ASSEMBLY 27A38) K52 AWG9 POWER K51 AWG9 POWER (RIGHT GLOVE RELAY BOX 772A1)	HAND CONTROL (27A20) (560) (WCS SWITCH)	07D42	IWSFD FIG. 4A ZONE 17C	733 727 734 728 741 729 742 730 743 731 744 732 745	EXTERNAL SIGNAL ADAPTER
721	OIL FLOW > 1.0 GPM	TBS721	RADAR TRANSMITTER (27A8) 011	STAR-BOARD FS210	FLOW SWITCH	> 1.0 GPM = SWITCHED 28VDC < 1.0 GPM = OPEN	K2 SOLENOID PWR (FORWARD RELAY BOX 781A1)	N/A	01P59	IWSFD FIG. 4A ZONE 73B	270	RESISTOR DIVIDER ADAPTER
722	HYDRAULICS - ON	TBS722	REGULATED POWER SUPPLY (27A24A4) (610) (HYDRAULICS - ON)	STARBOARD FS390	ENABLE SIGNAL	ON = 28VDC OFF = OPEN/GND	27K1 RADAR ANTENNA RELAY	N/A	07D43	IWSFD FIG 4A ZONE 71B	736	EXTERNAL SIGNAL ADAPTER
723	THERMAL SWITCH - CLOSED	TBS723	RADAR ANTENNA (27A2) (031)	FOREWARD FS160	TEMPERATURE SWITCH	CLOSED=SWITCHED 28VDC OPEN = "OPEN"	27K1 RADAR ANTENNA RELAY	N/A	01P60	IWSFD FIG. 4A ZONE 65C	736	RESISTOR DIVIDER ADAPTER
724	WCS 28VDC - EXT	TBS724	REGULATED POWER SUPPLY (27A24A4) (610) (WCS 28VDC EXT)	STARBOARD FS390	ENABLE SIGNAL	EXT = 28VDC $\overline{EXT}$ = OPEN	a) REGULATED PWR SUPPLY (27A24 A4) b) RADAR TEST ENABLE CONTROL PANEL (27A37)	N/A	07D44	IWSFD FIG. 4A ZONE 70A	737 738 739	EXTERNAL SIGNAL ADAPTER

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 4A SHEET 2

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
724 (Cont'd)							c) RDR ENABLED P/O NFO CAUTION ADVISORY INDICATOR					
726	RADAR TEST ENABLE-SCAN ONLY	TBS726	RADAR TEST ENABLE CONTROL PANEL (27A37)	STARBOARD FS215	TOGGL/RELAY DRIVEN SWITCH	SCAN ONLY = SWITCHED 28VDC OFF = OPEN	REGULATED PWR SUPPLY (27A24A4)	N/A	07D45	IWSFD FIG. 4A ZONE 69B	739	EXTERNAL SIGNAL ADAPTER
727	DC REG ON - ENABLE	TBS727	REGULATED POWER SUPPLY (27A24A4) (610) (DC REG ON ENABLE)	STARBOARD FS390	RELAY DRIVE SIGNAL	ENABLE = 28VDC $\overline{\text{ENABLE}}$ = OPEN	K50-SEMI-REGULATED PWR SUP (RIGHT GLOVE RELAY BOX 772A1)	N/A	07D46	IWSFD FIG. 4A ZONE 71C	740	EXTERNAL SIGNAL ADAPTER

TABLE II P-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 4A SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
727	AC - 3 POLE (CAN BE 3 SINGLE POLE DEVICES)	V=115VAC ϕA, B, C I = 3A	a) COMPUTER ADDRESS (27A18) (505) b) DDD (27A17) (541)				K1 - CONTROL AND DISPLAY POWER (PMS RELAY ASSEMBLY 27A38) CB21 (3A) CONTR/DISPLAY PH C (35A5) CB23/3A) CONTR/DISPLAY PH B (35A5) CB24 (3A) CONTR/DISPLAY PH A (35A5) CB13 (5A) AMCS ENABLE (36A4)	07Q09 07Q10 07Q11	THL 727	IWSPD FIG. 4A ZONE 1A, 2A 17B, 17C, 21A	727
728	AC - 3 POLE (CAN BE 3 SINGLE POLE DEVICES)	V=115VAC ϕA, B, C I = 5A	POWER SUPPLY/BULK STORER (27A23A4) (462)				CB36(5A) AN/AWG-9 COMPTR PH. C (35A5) CB37(5A) AN/AWG-9 COMPTR PH. B (35A5) CB39(5A) AN/AWG-9 COMPTR PH. A (35A5) CB13(5A) AMCS ENABLE (36A4) K52 AWG-9 POWER (RIGHT GLOVE RELAY BOX 772A1)	05Q08 05Q09 05Q10	TBL 728	IWSPD FIG. 4A ZONE 1A, 2A 17C, 41B, 42B	728
729	AC - 3 POLE (CAN BE 3 SINGLE POLE DEVICES	V=115VAC ϕA, B, C	REGULATED POWER SUPPLY (27A24A4) (610) ϕA, B, C (STARBOARD PS375)				CB54 (7.5A) 28VDC PWR SUP PH. A (35A5) CB51 (7.5A) 28VDC PWR SUP PH. B (35A5) CB48 (7.5A) 28VDC PWR SUP PH. C (35A5) CB13 (5A) AMCS ENABLE (36A4)	05Q31 05Q32 05Q33	TBL729	IWSPD FIG. 14A ZONE 1B, 17C 69A, 70A	729

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 4A SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
729 (Continued)							P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)				
730	AC - 1 POLE	V=115VAC ϕA	RADAR ANTENNA (27A2) (031) (HEATER AND ETI) (FS100)				CB54 (7.5A) 28VDC PWR SUP PH. A (35A5) CB13 (5A) AMCS ENABLE (36A4) P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)	04Q01	TBL730	IWSFD FIG. 4A ZONE 1B, 2A 17C, 69A, 65C	730
731	AC - 1 POLE	V=115VAC ϕA	BEAM POWER SUPPLY (27A13) (014) (PWR SUP) (PORT FS150)				CB54 (7.5A) 28VDC PWR SUP PH. A (35A5) CB13 (5A) AMCS ENABLE (36A4) P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)	01Q13	TBL731	IWSFD FIG. 4A ZONE 1B, 2A 17C, 69A, 76B	731
732	ETI DRIVER	V=115VAC ϕA	LPRF PROCESSOR (27A25A2) (083) (ETI)				CB54 (7, 5A) 28VDC PWR SUP PH. A (35A5) CB13 (5A) AMCS ENABLE (36A4) P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)	01Q25	DTL732	IWSFD FIG. 4A ZONE 1B, 2A 17C, 69A, 78B	732
733	AC - 1 POLE	V=115VAC ϕB	RADAR TRANSMITTER (27A8) (011) ETI AND GRID MODULATOR)				CB51 (7.5A) 28VDC PWR SUP. PH. B (35A5) CB13 (5A) AMCS ENABLE (36A4) P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)	04Q02	TBL733	IWSFD FIG. 4A ZONE 1B, 2A 17C, 69A, 73C	733

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 4A SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
734	AC - 1 POLE	V=115VAC ϕC	RADAR SYNCHRONIZER (27A14) (010) (REGULATOR AND FILTERS)				CB48 (7.5A) 28VDC PWR SUP. PH. C (35A5) CB13 (5A) AMCS ENABLE (36A4) P/O K51 AWG-9 PWR (RIGHT GLOVE RELAY BOX 772A1)	04Q03	TBL734	IWSPD FIG. 4A ZONE 1B, 2A 17C, 69A 77B	734
735	DC - 1 POLE	V=28VDC	RADAR RECEIVER (27A6) (022) 28VDC				CB48 (5A) RADAR SUB-SYSTEM No. 1 (36A4) P/O K2 OBC TEST RELAY (PMS RELAY ASSEMBLY 27A38)	04Q04	TBL735	IWSPD FIG. 4A ZONE 2B, 71C IWSPD FIG. 35 ZONE 8C, 4C 3B, 2B, 1A	735
736	AC-3 POLE (CAN BE 3 SINGLE POLE DEVICES)	V=115VAC ϕA, B, C I = 20A EACH	RADAR ANTENNA (27A2) (031)				CB28 (20A) ANT SVD HYD PH. A (35A5) CB27 (20A) ANT SVD HYD PH. B (35A5) CB26 (20A) ANT SVD HYD PH. C (35A5) 27K1 RADAR ANTENNA RELAY	04Q05 04Q06 04Q07	TBL736	IWSPD FIG. 4A ZONE 65C, 21B, 1C	736
737	ENABLE DRIVER	28VDC/ OPEN	REGULATED POWER SUPPLY (27A24A4) (G10) (WEIGHT OFF MAIN WHEEL SIGNAL)				P/O K30 - MLG SAF "P" P/O K54 - AWG 9 SAF (RIGHT GLOVE RELAY BOX 772A1)	06D25	TBL737	IWSPD FIG. 4A ZONE 69B	737
738	ENABLE DRIVER	28VDC/ OPEN	REGULATED POWER SUPPLY (27A35A4) (G10) (MAIN WHEEL INTLK BYPASS 28VDC SIGNAL				P/O K30-MLG SAF "P" (RIGHT GLOVE RELAY BOX 772A1)	06D26	TBL738	IWSPD FIG. 4A ZONE 70B	738

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 4A SHEET 4

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
739	ENABLE DRIVER	28VDC/ OPEN	REGULATED POWER SUPPLY (27A24A4) (G10) (ANTENNA TEST 28VDC SIGNAL)				P/O K30 - MLG SAF "P" (RIGHT GLOVE RELAY BOX 772A1)	06D27	TBL739	IWSPD FIG. 4A ZONE	739
740	AC - 3POLE (CAN BE 3 SINGLE POLE DEVICES)	V = 115VAC ØA, B, C I=10A EACH	SEMI-REGULATED POWER SUPPLY (27A24A5) (601)				K50 SEMI-RGLTD PWR SUP (RIGHT GLOVE RELAY BOX 772A1) CB30 (10A) SEM REG PWR SUP PH. C (35A5) CB31 (10A) SEM REG PWR SUP PH. B (35A5) CB33 (10A) SEM REG PWR SUP PH. A (35A5)	05Q34 05Q35 05Q36	TBL740	IWSPD FIG. 4A ZONE 2B, 71C, 81C	740

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 4A SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
727	TBL727 = TBS719	719	727	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1A, 2A, 17B, 17C, 21A	COMPUTER ADDRESS AND DDD - 114VAC ϕA, B & C = WCS - STBY/XMIT ON SELECT
728	TBL728 = TBS719	719	728	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1A, 2A, 17C, 41B, 42B	POWER SUPPLY/BULK STORER - 115VAC ϕA, B & C = WCS - STBY/XMIT ON SELECT
729	TBL729 = TBS719	719	729	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 17C, 69A, 70A	REGULATED POWER SUPPLY - 115VAC ϕA, B & C = WCS- STBY/XMIT ON SELECT
730	TBL730 = TBS719	719	730	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 2A, 17C, 69A, 65C	RADAR ANTENNA - (HEATER AND ETI) - 115VAC ϕA = WCS - STBY/XMIT ON SELECT
731	TBL731 - TBS719	719	731	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 2A, 17C, 69A, 76B	BEAM POWER SUPPLY - (POWER SUPPLY) - 115VAC ϕA = WCS - STBY/XMIT ON SELECT
732	DTL732 = TBS719	719	732	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 2A, 17C, 69A, 78B	LPRF PROCESSOR - ETI - 115VAC ϕA = WCS -STBY/XMIT ON SELECT
733	TBL733 = TBS719	719	733	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 2A, 17C, 69A, 73C	RADAR TRANSMITTER - (ETI AND GRID MODULATOR) 115VAC ϕB = WCS - STBY/XMIT ON SELECT
734	TBL734 = TBS719	719	734	3	L. MAIN BUS	IWSPD FIG. 4A ZONE 1B, 2A 17C, 69A, 77B	RADAR SYNCHRONIZER - (REGULATOR AND FILTERS) 115VAC ϕC = WCS - STBY/XMIT ON SELECT
735	TBL735 = [$\overline{\text{DHS032}}$ • DHS031 • $\overline{\text{XAS180}}$ • (XAS003 + XAS004)] + (GDS002 • GDS102 • HNS127)	002 003 004 031 032 102 127 180	735	3	AWG-9 BUS	IWSPD FIG. 4A ZONE 2B, 71C 70C, 2A IWSPD FIG. 35 ZONE 8C, 4C, 3B, 2B, 1A	RADAR RECEIVER - 28VDC = (FLIGHT AND COMBINED PRESSURE - < 2100 PSI AND EXTERNAL AC PWR - NOT ON LINE AND RIGHT OR LEFT MAIN AC PWR - ON LINE) OR (LEFT AND RIGHT WLG - WEIGHT ON WHEELS AND GND CLG - $\overline{\text{OBC}}$/CABIN)

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 4A SHEET 2

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
736	TBL736 = TBS722 • TBS723	722 723	736	3	L. MAIN BUS	IWSFD FIG. 4A ZONE 65C, 71B, 1C	RADAR ANTENNA - 115VAC ØA, B, C = HYDRAULICS - ON AND THERMAL SWITCH - CLOSED
737	TBL737 = TBS724 • ($\overline{GD8002}$ + $\overline{GDS102}$)	002 102 724	737			IWSFD FIG. 4A ZONE 69B	REGULATED POWER SUPPLY - WEIGHT OFF MAIN WHEEL SIGNAL - (28VDC) = WCS 28VDC-EXT AND LEFT OR RIGHT MLG WEIGHT NOT ON WHEELS
738	TBL738 = GDS002 • GDS102 • SVS549 • TBS724	002 102 549 724	738			IWSFD FIG. 4A ZONE 69B	MAIN WHEEL INTLK BYPASS (28VDC) = LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND RADAR TEST ENABLE - RADIATE AND SCAN AND WCS $\overline{28}$VDC-EXT
739	TBL739 = (TBS724 • GDS002 • GDS102) • (SVS549 + TBS726)	002 102 724 549 726	739			IWSFD FIG. 4A ZONE 69B	ANTENNA TEST (28VDC) = WCS 28VDC EXT AND LEFT AND RIGHT MLG - WEIGHT ON WHEELS AND RADIATE TEST ENABLE - RADIATE AND SCAN OR $\overline{SCAN}$ ONLY
740	TBL740 = TBS727	727	740	3	L. MAIN BUS	IWSFD FIG. 4A ZONE 2B, 71C, 81C	SEMI REGULATED PWR SUP - 115VAC ØA, B, C = DC REG. ON - ENABLE

TABLE I F-14 SOSTEL SIGNAL TRANSDUCERS

FIGURE 5A SHEET 1

1 Table Item #	2 Signal Name/Function	3 Identifier Code	4 Signal Source Box Identification	5 Point of Origin	6 Transducer Type	7 Present Signal Characteristics	8 Associated Loads	9 Conventional Switches Being Replaced or Deleted	10 Operational Address	11 Reference Drawings	12 Associated Boolean Equation	13 Conditioning Technique
720	IR COOLING - INTERLOCK	THS720	INFRARED AMPLIFIER (27A22) (120)	PORT FWD FS205	RELAY DRIVEN SIGNAL	COOLING=28VDC $\overline{\text{COOLING}}$=OPEN	K1-IR/TV RELAY P/O FORWARD RELAY BOX (781A1)	N/A	05D48	IWSPD FIG. 5A ZONE 231C	746	EXTERNAL SIGNAL ADAPTER
728	IR/TV ON - SELECT	THS728	P/O HAND CONTROL (27A20) (560) IR/TV SWITCH	NFO CENTER CONSOLE FS300	1P3T TOGGLE SWITCH	ON = SWITCHED 28VDC OFF = OPEN	INFRARED AMPLIFIER (27A22) (120)	IR/TV SWITCH	05P26	IWSPD FIG. 5A ZONE 3A	747	SOLID STATE
729	IR/TV STBY - SELECT	THS729	P/O HAND CONTROL (27A20) (560) IR/TV SWITCH	NFO CENTER CONSOLE FS 300	1P3T TOGGLE SWITCH	STBY = SWITCHED 28VDC OFF = OPEN	INFRARED AMPLIFIER (27A22) (120)	IR/TV SWITCH	05P27	IWSPD FIG. 5A ZONE 3A	748	SOLID STATE

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 5A SHEET 1

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
741	AC - 3 POLE (CAN BE 3 SINGLE POLE DEVICES)	V=115VAC ØA, B, C	TID (27A16) (580) (115VAC ØA, B, C)				CB24 (3A) CONTR/DISPLAY PH. A CB23 (3A) CONTR/DISPLAY PH. B CB21 (3A) CONTR/DISPLAY PH. C (35A5) F/O PMS RELAY ASSEMB. (27A38) K1 CONTROL & DISPLAY PWR	03Q02 03Q03 03Q04	AGL741	IWSFD FIG. 5A ZONE 1A, 5A 4A, 261C	741
742	ETI DRIVER	V=115VAC ØA	SENSOR CONTROL PANEL (27A19) (501) (ETI)				CB24 (3A) CONTR/DISPLAY PH. A (35A5) F/O K1 CONTROL & DISPLAY PWR (PMS RELAY ASSEMB. (27A38)	03Q05	DTL742	IWSFD FIG. 5A ZONE 1A, 4A 5A, 41B	742
743	AC - 1 POLE	V=115VAC ØA	MISSION RECORDER (27A15A) (590) (CAMERA MOTOR)				CB24/3A) CONTR/DISPLAY PH. A (35A5) F/O K1 CONTROL & DISPLAY PWR (PMS RELAY ASSEMB 27A38)	03Q06	SRL743	IWSFD FIG. 5A ZONE 1A, 4A 5A, 273A	743
744	ETI DRIVER	V=115VAC ØA	DOPPLER PROCESSOR (27A25A3) (039) (ETI METER)				CB24 (3A) CONTR/DISPLAY PH. A (35A5) F/O K1 CONTROL & DISPLAY PWR (PMS RELAY ASSEMB. (27A38)	01Q26	DTL744	IWSFD FIG. 5A 1B, 4A, 6B 148C	744

TABLE II F-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 5A SHEET 2

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
745	ETI DRIVER	V=115VAC ϕA	DOPPLER FILTER (27A25A4) (042A & 042B)				CB24 (3A) CONTR (DISPLAY PH. A (35A5) P/O K1 CONTROL & DISPLAY PWR (PMS RELAY ASSEMB 27A38)	01Q27	DTL745	IWSPD FIG. 5A ZONE 1A, 4A 6B, 156C, 158C	745
746	AC - 3 POLE (CAN BE 3 SINGLE POLE CONTROLLERS)	V=115VAC ϕA, B, C	a) INFRARED AMPLIFIER (27A22) (120) b) INFRARED RECEIVER (27A21) (101)				CB18 (3A) IR/TV PH. A CB17 (3A) IR/TV PH. B CB15 (3A) IR/TV PH. C (35A5) K1 IR/TV RELAY P/O FORWARD RELAY BOX (781A1)	01Q03 01Q04 01Q05	THL746	IWSPD FIG. 5A ZONE 1C, 217B, 231C	746
747	ENABLE DRIVER	V=28VDC	INFRARED AMPLIFIER (27A22) (120) (IR/TV ON SELECT)				CB51 (5A) IR/SUBSYS (36A4)	04D01	THL747	IWSPD FIG. 5A ZONE 1C, 3A 217B	747
748	ENABLE DRIVER	V=28VDC	INFRARED AMPLIFIER (27A22) (120) (IR/TV STBY SELECT)				CB51 (5A) IR/SUBSYS (36A4)	04D02	THL748	IWSPD FIG. 5A ZONE 1C, 3A 217B	748
749	DC - 1 POLE	V=28VDC	INFRARED AMPLIFIER (27A22) (120) 28VDC	100%			CB51 (5A) IR/SUBSYS (36A4)	01Q06	THL 749	IWSPD FIG. 5A ZONE 1C, 217C	749
750	DC - 1 POLE	V=28VDC I=5A	a) P/O HAND CONTROL (27A20) (560) b) DDD (27A 17) (541) c) TID (27A16) (580) d) MISSION RECORDER (27A15A) (590)	100%			CB50 (5A) CONTR/DISPL SUBSYS (36A4)	03Q07	THL750	IWSPD FIG. 5A ZONE 1C, 38B 44B, 261B 273A	750

TABLE II P-14 SOLID STATE POWER CONTROLLERS AND DRIVERS

FIGURE 5A SHEET 3

1 Table Item #	2 Type of Power Controller	3 Rating V & I	4 Associated Loads	5 Duty Cycle	6 Load Power Dissipation	7 P.C. Location	8 Conventional Devices Being Replaced	9 Operational Address	10 Identifier Code	11 Reference Drawings	12 Associated Boolean Equations
751	DC - 1 POLE	V=28VDC I=7.5A	a) RADAR SYNCHRON-IZER (27A14) (010) (28VDC RADAR NO. 2) b) P/O RADAR AN-TENNA (27A2) (031) (28VDC RADAR NO. 2)				CB47 (7.5A) RADAR SUBSYS NO. 2 (36A4)	04Q08	TBL751	IWSFD FIG. 5A ZONE 2A, 123C	751

TABLE III F-14 SOSTEL BOOLEAN EQUATIONS

FIGURE 5A SHEET 1

1 Table Item #	2 Boolean Equation	3 Transducer List Cross Reference	4 Solid State Controller List Cross Reference	5 Bus/Load Management Priority	6 Special Considerations	7 Reference Drawings	8 Equation Description & Notes
741	AGL741 = TBS719	719	741	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1A, 5A 4A, 261C	TID (115VAC ØA, B, C) = WCS -STBY/XMIT ON SELECT
742	DTL742 = TBS719	719	742	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1A, 4A, 5A, 41B	SENSOR CONTROL PANEL _ (TID 115VAC ØA) = WCS - STBY/XMIT ON SELECT
743	SRL743 = TBS719	719	743	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1A, 4A, 5A 273A	MISSION RECORDER - (CAMERA MOTOR 119VAC) = WCS - STBY/XMIT ON SELECT
744	DTL744 = TBS719	719	744	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1A, 4A, 6B, 148C	DOPPLER PROCESSOR - (ETI 115VAC) = WCS - STBY/XMIT ON SELECT
745	DTL745 = TBS719	719	745	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1A, 4A, 6B 156C, 158C	DOPPLER FILTERS (042A & 042B) - (ETI - 115VAC) = WCS-STBY/XMIT ON SELECT
746	THL746 = THS720	720	746	3	L. MAIN BUS	IWSPD FIG. 5A ZONE 1C, 217B 231C	INFRARED RECEIVER AND AMPLIFIER - (115VAC ØA, B, C) = IR COOLING INTERLOCK
747	THL747 = THS728	728	747	3	AWG-9 BUS	IWSPD FIG. 5A ZONE 1C, 3A 217B	INFRARED AMPLIFIER - (IR/TV ON SELECT 28VDC) = IR/TV ON - SELECT
748	THL748 = THS729	729	748	3	AWG-9 BUS	IWSPD FIG. 5A	INFRARED AMPLIFIER _ (IR/TV STBY SELECT 28VDC) = IR/TV STBY - SELECT
749	THL749	N/A	749	3	AWG-9 BUS	IWSPD FIG. 5A ZONE 1C, 217C	INFRARED AMPLIFIER - 28VDC = 28VDC RIGHT MAIN BUS - ENERGIZED
750	THL750	N/A	750	3	AWG-9 BUS	IWSPD FIG. 5A ZONE 1C, 38B 44B, 261B, 273A	HAND CONTROL, DDD, TID AND MISSION RECORDER - (28VDC) = AWG-9 DC BUS - ENERGIZED
751	TBL751	N/A	751	3	AWG-9 BUS	IWSPD FIG. 5A ZONE 2A, 123C	RADAR SYNCHRONIZER AND RADAR ANTENNA - (28VDC) = AWG-9 DC BUS-ENERGIZED

Appendix C

BENDIX CORPORATION COMMENTS TO MIL-E-23001A(AS)

All subparagraphs are acceptable except for the following:

3.3.1.1 Voltage Regulation

Not acceptable.

Delete: "And for unbalanced loads within the rating of the system, where the difference in per phase load currents do not exceed 1/3 of the phase current rating."

Delete: Figure 1

Add: For unbalanced loads within the rating of the system, where the difference in per unit phase load current do not exceed 1/3 of the rated phase current, the line to neutral voltage shall remain within 115.0 volts $\pm$ 3%.

Add: Revised Figure 1.

3.3.2 Output Frequency

Acceptable any class.

3.3.9 Radio Noise

Not acceptable.

Delete: ID

Add: III B

3.4.1.13 Potentiometer and Adjustable Resistor

Not acceptable.

Delete: "Shall not be used"

Add: "Shall conform to MIL-R-22097"

3.4.2.7 Input Shaft Disconnect

Not acceptable.

4.5.14 Performance and Endurance

Not Acceptable.

Delete: "Generator coolant 120°C"

Add: "Generator coolant 85°C"

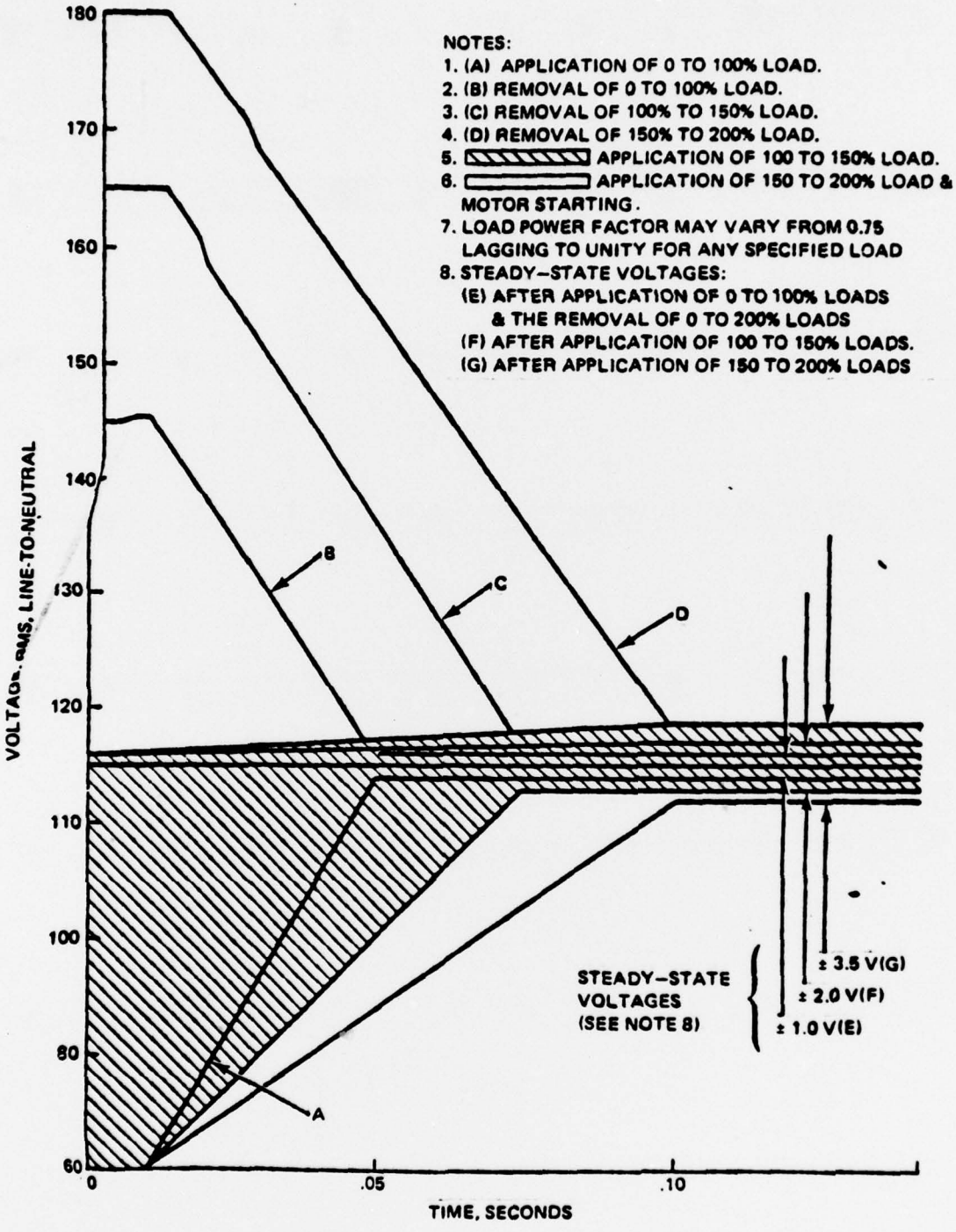
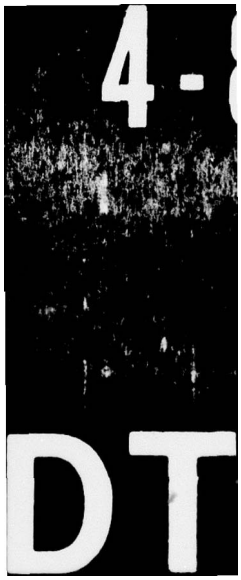


Figure C-1 Voltage Transient Limits (Revised)


4-
DT