

NAVAL AIR TRAINING COMMAND

TRAINING AIR WING ONE

NAS MERIDIAN MISSISSIPPI



TRAINING ONE IN-FLIGHT GUIDE



AUG 2011

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Commander, Training Air Wing ONE

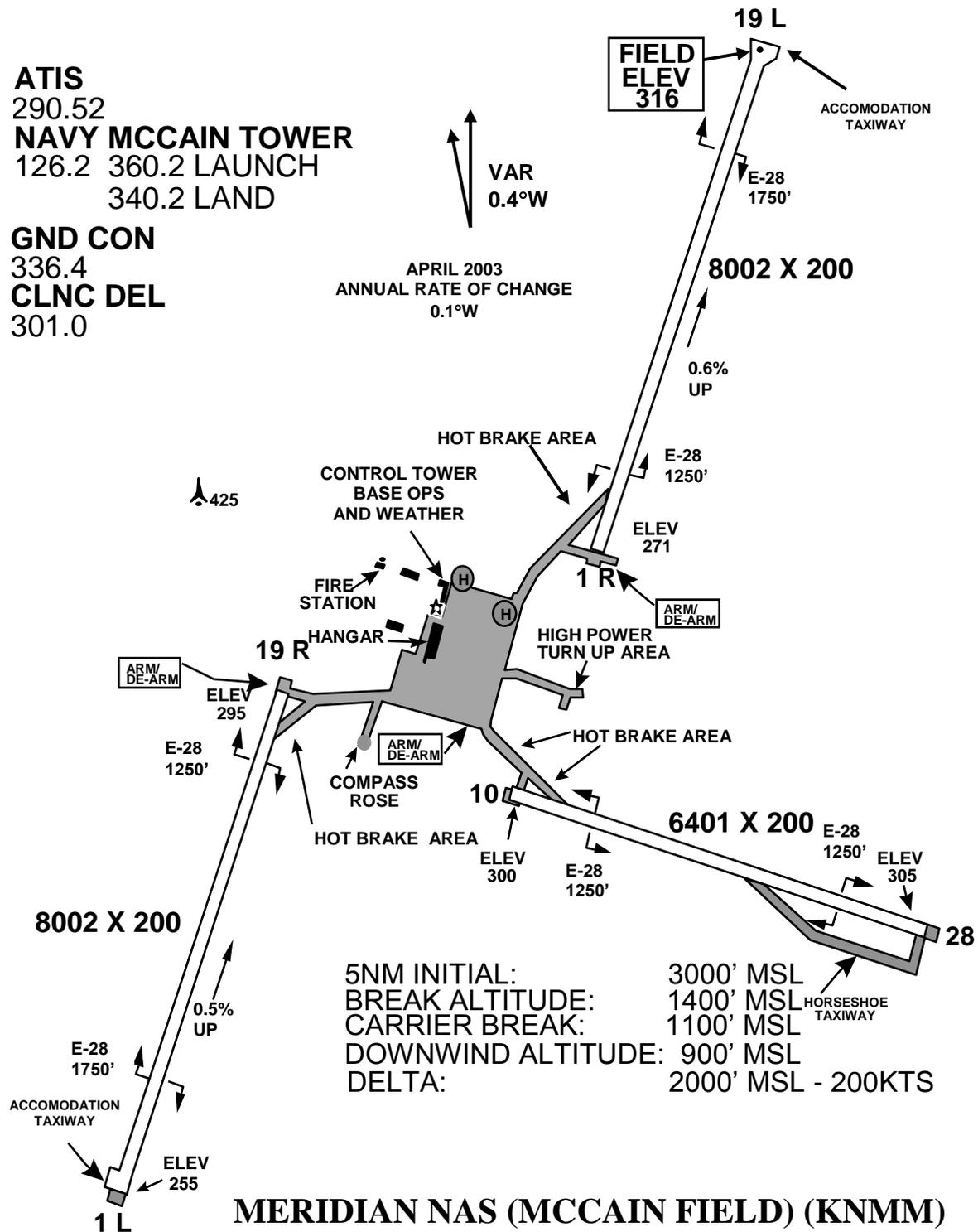
NMM CLASS D AIRSPACE: 2500' / 5NM

ATIS
290.52
NAVY MCCAIN TOWER
126.2 360.2 LAUNCH
340.2 LAND

GND CON
336.4
CLNC DEL
301.0

VAR
0.4°W

APRIL 2003
ANNUAL RATE OF CHANGE
0.1°W



MERIDIAN NAS (MCCAIN FIELD) (KNMM)

T-45 FREQUENCY CARD

<u>BTN</u>	<u>FACILITY</u>	<u>PRI</u> <u>UHF</u>	<u>FACILITY</u>	<u>AUX</u> <u>UHF</u>
1	NMM CLEARANCE	301.0	MEM CTR - FCF	285.4
2	NMM GROUND	336.4		336.4
3	NMM TWR - LAUNCH	360.2		360.2
4	MEI DEPARTURE	343.7		343.7
5	MEMPHIS CENTER	263.0		263.0
6	AREA 1	289.9		289.9
7	AREA 2/3	285.2		285.2
8	AREA 4	282.1		282.1
9	NJW TWR	279.2		279.2
10	NJW GROUND	355.8		355.8
11	APPROACH	276.4		276.4
12	NMM TOWER - LAND	340.2		340.2
13	GCA - BTN 13	328.4		328.4
14	GCA - BTN 14	310.8		310.8
15	GCA - BTN 15	323.225		323.225
16	GCA - BTN 16	266.8	MEI ATIS	291.675
17	MEI GROUND	121.9	TAC 17 - VT9	265.90
18	MEI TOWER	119.8	TAC 18 - VT9	261.35
19	MEI APP / DEP	120.5	TAC 19 - VT9	264.35
20	MEM CTR - MEI	351.7	TAC 20 - VT9	271.7
21	APP - BHM & PH MOA'S	348.7	TAC 21 - VT9	225.80
22	ATLANTA CNTR-PH MOA	352.8	TAC 22 - VT7	345.25
23	PINE HILL MOA	280.1	TAC 23 - VT7	371.75
24	ATL CENTER-BHM MOA	297.4	TAC 24 - VT7	279.45
25	BIRMINGHAM MOA	252.9	TAC 25 - VT7	299.25
26	IR-044	362.6	TAC 26 - VT7	316.4
27	R4404	227.825	MAINT CTRL	342.8
28	TIGER BASE	308.2		308.2
29	EAGLE BASE	342.6		342.6
30	NMM ATIS	290.525		290.525

<u>MANUAL FREQUENCIES</u>		<u>FACILITIES</u>	<u>TAC / VOR / LOC</u>	<u>(RWY)</u>
FSS	255.4	MERIDIAN	MEI 117 / 117.0 / 110.1/111.35	(1L)(19)
GUNSHY TWR	325.8	KEWANEE	EWA 85 / 113.8	
COLUMBUS APPR	226.0	CRIMSON	LDK 125 / 117.8 / 109.1	(4)
PENSACOLA APPR	270.8	BROOKWOOD	OKW 47 / 111.0	
SHERMAN TWR	340.2	SEMMES	SJI 100 / 115.3 / 109.9	(14)
SHERMAN GND	336.4	BIGBEE	IGB 109 / 116.2	
VT-7 ALT TAC	274.8	COLUMBUS	CBM 99 / 115.2 / 109.3	(13C)
VT-9 ALT TAC	336.75	JACKSON	JAN 73 / 112.6 / 110.5	(16L)
GREENWOOD TWR	367.6	NAS PENSACOLA	NPA 119 /	
JACKSON APPR	317.7	PENSACOLA REG	PNS / / 111.1	(17)
JACKSON TWR	352.0	MAXWELL	MXF 97 / / 109.3	(15)
PILOT TO METRO	312.8	SIDON	SQS 94 / 114.7 / 111.3	

REFERENCE INFORMATION

CTW-1 STANDARD T-45 FUEL PLANNING DATA

Actual performance will vary with prevailing temperature, winds, drag index and varying gross weight.

For initial planning only.

Total usable fuel (JP-8/JET A+)	2,861 lbs
Start/Taxi/Take off	200
Penetration	200
GCA	250
Reserve (20 min @ 10,000 ft MSL)	300
Low level (360 KGS @ 12K GW=6.6 LB/NM=2,375 PPH//300 KGS=5.0 LB/NM=1,500 PPH)	

JP-4 = 6.5 LB/GAL JP-5 = 6.8 LB/GAL JP-8 (JET A+) = 6.7 LB/GAL

Climb Out (13K GW, 250 KIAS to 10K, 300 KIAS to .75 IMN)

<u>Altitude</u>	<u>KIAS</u>	<u>NM</u>	<u>Time</u>	<u>Fuel Used (lbs)</u>
5,000	250	04	0+01	60
10,000	250	08	0+02	110
15,000	300	14	0+03	180
20,000	300	22	0+04	240
25,000	300	32	0+05	320
30,000	283/.75	44	0+07	380
35,000	253/.75	60	0+09	460
40,000	225/.75	91	0+13	570

En route (Optimum Cruise @ 12K GW)

<u>Altitude</u>	<u>#/NM</u>	<u>IMN</u>	<u>CAS</u>	<u>#/HR</u>	<u>TAS</u>
5,000	4.76	.38	230	1,195	250
10,000	4.35	.42	230	1,138	262
15,000	3.88	.46	230	1,102	282
20,000	3.42	.51	230	1,073	310
25,000	3.09	.56	230	1,055	340
30,000	2.82	.61	230	1,047	370
35,000	2.58	.68	230	997	380

Normal descent (12K GW IDLE W/SPD BRAKES IN)

<u>Altitude</u>	<u>IAS</u>	<u>NM</u>	<u>Time</u>	<u>Fuel Used (lbs)</u>
5,000	250	10	2+30	19
10,000	250	20	4+30	36
15,000	250	31	6+30	57
20,000	250	41	8+30	66
25,000	250	52	10+30	79
30,000	250	64	12+15	90
35,000	235	74	14+00	100
40,000	209	84	15+30	108

BRIEFING GUIDE

FLIGHT BRIEFING

THE FLIGHT LEADER OR PILOT IN COMMAND IS RESPONSIBLE FOR ENSURING THAT ALL FLIGHT OR CREW MEMBERS ARE PROPERLY BRIEFED ON THE OPERATION AND CONDUCT OF THE MISSION. A BRIEFING GUIDE AND THE APPROPRIATE MISSION CARD WILL BE USED BY THE FLIGHT LEADER. INFORMATION MARKED WITH AN ASTERISK (*) WILL BE DISPLAYED ON A STATUS BOARD IN THE BRIEFING OR READY ROOM AND SHOULD BE COPIED BY PILOTS BEFORE COMMENCEMENT. EACH PILOT IN THE FLIGHT SHOULD BE PREPARED TO ASSUME THE FLIGHT LEAD AND CONTINUE THE MISSION TO A SUCCESSFUL COMPLETION SHOULD IT BECOME NECESSARY.

THE BRIEFING WILL INCLUDE THE FOLLOWING ITEMS, WHEN APPLICABLE.

I ORM/TTO

II GENERAL

1. SYLLABUS EVENT, AIRCRAFT ASSIGNED, CALL SIGN*
2. BRIEF, WALK, AND TAKEOFF TIMES*
3. ASSIGNED WORKING AREA, TARGET, AND ROUTE TIMES AS APPLICABLE*
4. ATC CLEARANCE / IFF PROCEDURES

III WEATHER / NOTAMS/ TFR / BASH

1. LAUNCH WEATHER*
2. LOCAL, ENROUTE, AND DESTINATION WEATHER*
3. ALTERNATE / DIVERT FIELD WEATHER
4. WINDS
5. NOTAMS / TFR
6. BASH

IV COMMUNICATIONS

1. PRESET CHANNELS / FREQUENCIES
2. CONTROLLING AGENCIES*
3. RADIO CONTROL / PROCEDURES / DISCIPLINE

V NAVIGATION

1. NAVAIDS* / CONTROL / PROCEDURES
2. WAYPOINT PLAN*
3. RADAR ALTIMETER PROCEDURES

VI PERFORMANCE DATA

1. IDLE RPM IN THE LINE*
2. TAKEOFF LINE SPEED*
3. TAKEOFF DISTANCE*
4. MAX ABORT SPEED*

VII GROUND OPERATIONS

1. PREFLIGHT / ORDNANCE LOADOUT AND PREFLIGHT
2. START / CHECKLISTS
3. MARSHALL / TAXI
4. ARMING PROCEDURES*

VIII TAKEOFF / DEPARTURE / ENROUTE

1. DUTY RUNWAY
2. TAKEOFF
3. DEPARTURE PROCEDURES
4. RENDEZVOUS FORMATION / RESHUFFLE
5. ENROUTE FORMATION
6. ROUTE OF FLIGHT

IX RECOVERY

1. FUEL MANAGEMENT / JOKER/ RTB
2. CHECKLISTS / PROCEDURES
3. RECOVERY
4. APPROACH(ES)
5. ROUTE / FORMATION / OVERHEAD BREAK

X CONTINGENCIES / EMERGENCIES

1. ALTERNATE LEAD
2. AIRCRAFT FALLOUT
3. CLEAR ENGINE PROCEDURE
4. ABORTED TAKEOFF
5. RUNWAY DEPARTURE / LOSS OF DIRECTIONAL CONTROL
6. SYSTEM FAILURES / EMERGENCY PROCEDURES / CRM
7. BIRD STRIKE
8. MIDAIR
9. RADIO / ICS FAILURE
10. LOSS OF NAVAIDS / LOST PLANE PROCEDURES
11. INADVERTENT IMC / LOST SIGHT (LOST COMM / LOST SIGHT RDV PT)*
12. DISORIENTATION / VERTIGO
13. HYPOXIA
14. EJECTION (HIGH / LOW / GROUND)
15. SAR / ON SCENE COMMANDER
16. DIVERT(S) / BINGO FUEL TO DIVERT FIELD

XI MISSION CONDUCT

ACM TRAINING RULES

ADMIN

1. BRIEF DEPARTURE/SPIN, COMPRESSOR STALL PROCEDURES, AND CURRENCY – All in flight have flown: 1 in 6 and 2 in 14 (<750 hrs), or 1 in 14 and 2 in 30 (>750 hrs)
2. FACE-TO-FACE BRIEF OF ALL MANEUVERS FOR ALL PARTICIPANTS.
3. ACM WILL BE CONDUCTED IN AN AUTHORIZED AREA ONLY FROM 30 MIN AFTER SUNRISE TO 30 MIN PRIOR TO SUNSET.
4. ACM WX MINS:
 - a. 5 miles visibility with a defined horizon.
 - b. 11K' between broken/overcast layers.
 - c. 1 NM horizontally and 2K' vertically from all clouds.
 - d. ACM may be conducted above broken/overcast layer provided the highest layer is below 7K' AGL for solo events and 8K' AGL for dual events. The flight lead will then establish the hard deck 5K' above that layer and all A/C will acknowledge the new hard deck.
5. HARD DECK SHALL BE 10,000 FT AGL MINIMUM.
6. SOFT SHALL BE 5,000 FT ABOVE THE HARD DECK.
 - a. No sustained low speed/high AOA maneuvering (less than 120 knots AND more than 24 units) below the soft deck.
7. ALL AIRCRAFT MUST HAVE OPERABLE UHF AND ICS (MULTI-CREW) AND MONITOR GUARD.
8. CONFIGURATION CHANGES OTHER THAN SPEED BRAKES ARE NOT AUTHORIZED.
9. "G" AWARENESS MANEUVER REQUIRED PRIOR TO ACM.

COLLISION AVOIDANCE

10. MAINTAIN A 500' BUBBLE AROUND ALL AIRCRAFT.
11. ALWAYS ASSUME THE OTHER AIRCRAFT DOES NOT SEE YOU.
12. MAINTAIN THE ESTABLISHED TREND ON HEAD TO HEAD PASSES. WHEN NO TREND EXISTS, EACH AIRCRAFT SHALL GIVE WAY TO THE RIGHT FOR A LEFT-TO-LEFT PASS. TRANSMIT YOUR OWN INTENTIONS.
13. LOW AIRCRAFT IN A HORIZONTAL SCISSORS IS RESPONSIBLE FOR SAFE SEPARATION. NOSE HIGH GOES HIGH, NOSE LOW HAS COLLISION AVOIDANCE RESPONSIBILITY. TRANSMIT YOUR OWN INTENTIONS.

COLLISION AVOIDANCE (continued)

14. NEVER INTENTIONALLY MANEUVER TO LOSE SIGHT (NO BLIND LEAD TURNS).
15. IF LOST SIGHT, TRANSMIT "BLIND" AND REMAIN PREDICTABLE. OTHER AIRCRAFT SHALL ACKNOWLEDGE WITH "CONTINUE" OR "KNOCK-IT-OFF" AS APPROPRIATE, PROVIDING DIRECTIVE COMM AS NECESSARY FOR SAFETY OF FLIGHT. ONCE SIGHT IS REGAINED, TRANSMIT "TALLY."
16. UP-SUN AIRCRAFT IS RESPONSIBLE FOR COLLISION AVOIDANCE. IF DOWN-SUN AIRCRAFT LOSES SIGHT, BREAK OFF THE ATTACK, TURN AWAY FROM PREDICTED COLLISION BEARING AND BROADCAST "BLIND, SUN." UP-SUN AIRCRAFT SHALL ACKNOWLEDGE WITH EITHER "CONTINUE" OR "KNOCK-IT-OFF" CALL.
17. BREAK OFF ALL GUN ATTACKS AT 1,000', NO FORWARD QUARTER GUN ATTACKS (45 deg of target nose). CNATRA WEAPONS ENVELOPES APPLY.

TERRAIN AVOIDANCE

18. IN A DESCENDING FIGHT, THE OFFENSIVE (HIGH) AIRCRAFT SHALL MONITOR THE DEFENSIVE (LOW) AIRCRAFT'S ALTITUDE, ATTITUDE AND AIRSPEED AND BREAK OFF THE ATTACK PRIOR TO PUSHING THE DEFENSIVE AIRCRAFT THROUGH THE HARD DECK.

TERMINATION

19. ANYONE CAN CALL A "KNOCK-IT-OFF." EACH AIRCRAFT SHALL TERMINATE THE ENGAGEMENT, MANEUVER TO SAFETY AND ACKNOWLEDGE WITH THEIR OWN "KNOCK-IT-OFF." WATCH OUT FOR THE MID-AIR POTENTIAL FOLLOWING A "KNOCK-IT-OFF".
20. KNOCK-IT-OFF FOR ANY OF THE FOLLOWING:
 - a. Any training rule is violated.
 - b. Interloper (unbriefed A/C) enters the engagement area.
 - c. Any OCF flight situation develops.
 - d. G-LOC experienced or suspected. (Aircrew shall RTB).
 - e. Radio failure/loss of ICS. An aircraft rocking wings is an automatic "knock-It-off."
 - f. Bingo fuel state is reached
 - g. Dangerous situation/loss of situational awareness/inadvertent IMC/possible overstress.
 - h. Training objectives have been reached.
 - i. Engaged aircraft crosses the border of the authorized training area.

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STANDARD NMM MDL BRICK WAYPOINTS

Page 1

01L	SEARA	DSOTO
01R	ALPHA	MEI
19L	NJW14	KMEI
19R	NJW32	JAN
28	EWA	KJAN

Page 2

A11	A16	A233
A12	A17	A234
A13	A18	A235
A14	A231	A236
A15	A232	A237

Area 1: 1-2-3-4-5-6-7-3-2-8
 Area 2/3: 1-2-8-3-4-5-6-7-1-4
 WYPT 8= A15

Page 3

A41	A46	PH2
A42	A47	PH3
A43	A48	PH4
A44	A49	PH5
A45	PH1	PH6

Area 4: 1-2-3-4-5-6-7-8-5-9

PH MOA: 1-2-3-4-5-6-2

Page 4

BHM1	BHM6	IR44F
BHM2	IR44A	IR44G
BHM3	IR44B	IR44I
BHM4	IR44C	IR44J
BHM5	IR44D	IR44K

BHAM: 1-2-3-4-5-6-2
 IR 44: 1-2-3-4-5-6-7-8-9

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SNAP1	SNAP6	1030D
SNAP2	SNAP7	1030E
SNAP3	1030A	1030F
SNAP4	1030B	1030G
SNAP5	1030C	1030H

Snap: 1-2-3-4-5-6-7-2-1

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1030I	1031A	1031F
1030J	1031B	1031G
30IP	1031C	31IP
30TGT	1031D	31TGT
1030L	1031E	1031I

Page 7

1031J	1033D	1055B
1031K	1033E	1055C
1033A	1033F	1055D
1033B	1033G	1055E
1033C	1055A	1055F

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55 IP	1056D	1072A
55TGT	1056E	1072B
1056A	1056F	1072C
1056B	56IP	1072D
1056C	56TGT	1072E

Page 9

72IP	GSO	KAVL
72TGT	JYU	KNKT
1072G	PSK	KCHS
1072H	TDG	KNTU
BLF	KROA	KNGU

Page 10

KNQX	LCH	KGWO
MCB	PSX	LIT
BTR	KNGP	KLRF
KARA	KNQI	FSM
KLFT	SQS	KFSM

Page 11

ELD	KBHM	BNA
TXK	GQO	PXV
LDK	KCHA	KEVV
KTCL	VXV	MEM
VUZ	KTYS	MXF

Page 12

MGM	KBFM	PAM
KMGM	KMOB	SZW
SJI	CEW	KTLH
GPT	NPA	KGNV
KBIX	KPNS	KCOF

Page 13

W1	W6	JAWSS
W2	W7	SNOOC
W3	KNRB	KJAX
W4	KNIP	KSAV
W5	KVQQ	KNBC

Warn Area: 1-2-3-4-5-6-7

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11NEN		
29NEN		
MGM		
SZW		
TAY		

Commander, Training Air Wing ONE

Standard NMM MDL Brick Waypoints (Rev 1)

PAGE 1: NMM, NJW, MEI, JAN			
LAT	LONG	ID	DESCRIPTION
N323151	W883414	01L	RWY 1L
N323333	W883308	01R	RWY 1R
N323451	W883255	19L	RWY 19L
N323308	W883401	19R	RWY 19R
N323246	W883204	28	RWY 28
N330315	W884045	SEARA	SEARAY TGT
N325625	W883445	ALPHA	GUNSHY
N324816	W885030	NJW14	NJW RWY 14
N324731	W884934	NJW32	NJW RWY 32
N322200	W882730	EWA	KEWANEE
N315644	W884535	DSOTO	DSOTO
N322242	W884815	MEI	MERIDIAN
N321952	W884513	KMEI	KEY FLD
N323027	W901003	JAN	JACKSON
N321840	W900433	KJAN	JACKSON EVER

PAGE 2: AREA 1, AREA 2			
LAT	LONG	ID	DESCRIPTION
N325542	W885800	A11	NMM315030
N324430	W890530	A12	NMM290030
N325112	W892830	A13	NMM290050
N323354	W893136	A14	NMM267050
N323400	W884400	A15	NMM266010
N324142	W884100	A16	NMM315010
N330936	W891500	A17	NMM315050
N323324	W890730	A18	NMM268030
N330006	W895918	A231	NMM290078
N323418	W895606	A232	NMM267070
N323354	W893136	A233	NMM267050
N325112	W892830	A234	NMM290050
N330936	W891500	A235	NMM315050
N332330	W893100	A236	NMM315069
N332300	W895930	A237	NMM301087

Area 1: 1-2-3-4-5-6-7-3-2-8

Area 2/3: 1-2-8-3-4-5-6-7-1-4

WYPT8=A15

PAGE 3: AREA 4, PINEHILL MOA			
LAT	LONG	ID	DESCRIPTION
N332319	W885019	A41	NMM342051
N325501	W885648	A42	NMM314029
N332308	W893032	A43	NMM314069
N332320	W882610	A44	NMM005049
N330830	W882610	A45	NMM008034
N325005	W881852	A46	NMM036019
N323753	W883627	A47	NMM314004
N324832	W884906	A48	NMM314020
N330830	W885343	A49	NMM332038
N314016	W873054	PH1	EWA127064
N321615	W881929	PH2	EWA127009
N313148	W881931	PH3	EWA168051
N313236	W874450	PH4	EWA140061
N315511	W870323	PH5	EWA106076
N321116	W870246	PH6	EWA094073

Area 4: 1-2-3-4-5-6-7-8-5-9

PH MOA: 1-2-3-4-5-6-2

PAGE 4: BHM MOA, IR44			
LAT	LONG	ID	DESCRIPTION
N322812	W872634	BHM1	NMM095056
N330000	W872523	BHM2	NMM065062
N323523	W875901	BHM3	NMM087028
N322952	W875320	BHM4	NMM097034
N322636	W870226	BHM5	NMM095077
N325822	W870117	BHM6	NMM071081
N323642	W890755	IR44A	IR 44 PT A
N324522	W890840	IR44B	IR 44 PT B
N324805	W892020	IR44C	IR 44 PT C
N324151	W894559	IR44D	IR 44 PT D
N325307	W895821	IR44F	IR 44 PT F
N332057	W894655	IR44G	IR 44 PT G
N330339	W893507	IR44I	IR 44 PT I
N331749	W891308	IR44J	IR 44 PT J
N330737	W890311	IR44K	IR 44 PT K

BHAM MOA: 1-2-3-4-5-6-2

IR 44: 1-2-3-4-5-6-7-8-9

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PAGE 5: SNAP ROUTE, VR1030			
LAT	LONG	ID	DESCRIPTION
N320659	W872351	SNAP1	SNAP ROUTE 1
N320520	W874400	SNAP2	SNAP ROUTE 2
N320659	W880020	SNAP3	SNAP ROUTE 3
N314506	W880555	SNAP4	SNAP ROUTE 4
N314324	W875414	SNAP5	SNAP ROUTE 5
N314716	W874325	SNAP6	SNAP ROUTE 6
N315612	W874425	SNAP7	SNAP ROUTE 7
N321424	W880100	1030A	VR 1030 PT A
N315536	W872924	1030B	VR 1030 PT B
N314000	W871345	1030C	VR 1030 PT C
N314042	W864930	1030D	VR 1030 PT D
N315200	W865024	1030E	VR 1030 PT E
N321930	W863700	1030F	VR 1030 PT F
N324000	W864304	1030G	VR 1030 PT G
N325300	W872636	1030H	VR 1030 PT H

SNAP: 1-2-3-4-5-6-7-2-1

PAGE 6: VR1030, VR1031			
LAT	LONG	ID	DESCRIPTION
N324624	W875000	1030I	VR 1030 PT I
N324124	W880700	1030J	VR 1030 PT J
N322605	W880217	30IP	VR 1030 IP
N321418	W880100	30TGT	VR 1030 PT K (TGT)
N321012	W881706	1030L	VR 1030 PT L
N324951	W882748	1031A	VR 1031 PT A
N330840	W882535	1031B	VR 1031 PT B
N331342	W881542	1031C	VR 1031 PT C
N330238	W873659	1031D	VR 1031 PT D
N325820	W864527	1031E	VR 1031 PT E
N332307	W862229	1031F	VR 1031 PT F
N331132	W855524	1031G	VR 1031 PT G
N325314	W861259	31IP	VR 1031 PT H (IP)
N324757	W862550	31TGT	VR 1031 TGT
N323942	W864305	1031I	VR 1031 PT I

PAGE 7: VR1031, VR033, VR1055			
LAT	LONG	ID	DESCRIPTION
N325250	W872636	1031J	VR 1031 PT J
N324503	W874329	1031K	VR 1031 PT K
N323130	W884800	1033A	VR 1033 PTA
N324800	W892100	1033B	VR 1033 PT B
N331220	W892030	1033C	VR 1033 PT C
N332000	W894500	1033D	VR 1033 PT D
N324220	W893730	1033E	VR 1033 PT E
N321900	W894500	1033F	VR 1033 PT F
N320730	W891400	1033G	VR 1033 PT G
N352910	W841035	1055A	VR 1055 PT A
N350650	W840400	1055B	VR 1055 PT B
N343535	W843729	1055C	VR 1055 PT C
N343134	W853118	1055D	VR 1055 PT D
N340140	W852534	1055E	VR 1055 PT E
N330112	W852111	1055F	VR 1055 PT F

PAGE 8: VR1055, VR1056, VR1072			
LAT	LONG	ID	DESCRIPTION
N324656	W853927	55IP	VR 1055 PT F (IP)
N324035	W855430	55TGT	VR 1055 PT G (TGT)
N323252	W855938	1056A	VR 1056 PT A
N325145	W855030	1056B	VR 1056 PT B
N333853	W852435	1056C	VR 1056 PT C
N340635	W853457	1056D	VR 1056 PT D
N342212	W853634	1056E	VR 1056 PT E
N352548	W854320	1056F	VR 1056 PT F
N353430	W850945	56IP	VR 1056 IP
N353712	W844643	56TGT	VR 1056 PT G (TGT)
N320236	W900712	1072A	VR 1072 PT A
N320052	W902130	1072B	VR 1072 PT B
N314036	W905554	1072C	VR 1072 PT C
N311554	W912000	1072D	VR 1072 PT D
N310500	W910400	1072E	VR 1072 PT E

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PAGE 9: VR1072, ASHVILLE, EAST COAST			
LAT	LONG	ID	DESCRIPTION
N313554	W895910	72IP	VR 1072 PT F (IP)
N315110	W894252	72TGT	VR 1072 TGT
N320210	W893118	1072G	VR 1072 PT G
N315842	W884300	1072H	VR 1072 PT H
N371823	W811139	BLF	BLUEFIELD
N360244	W795835	GSO	GREENSBORO
N322041	W865929	JYU	JUNIOR
N370516	W804246	PSK	PULASKI
N333431	W860234	TDG	TALLADEGA
N371932	W795832	KROA	ROANOKE RGNL
N352610	W823230	KAVL	ASHEVILLE RGNL
N345403	W765250	KNKT	MCAS CHERRY POINT
N325355	W800225	KCHS	CHARLESTON AFB
N364914	W760200	KNTU	NAS OCEANA
N365615	W761721	KNGU	NS NORFOLK

PAGE 10: SOUTHWEST, WEST			
LAT	LONG	ID	DESCRIPTION
N243430	W814124	KNQX	NAS KEY WEST
N311816	W901529	MCB	MCCOMB
N302906	W911739	BTR	BATON ROUGE
N300215	W915302	KARA	ACADIANA RGNL
N301219	W915915	KLFT	LAFAYETTE RGNL
N300829	W930620	LCH	LAKE CHARLES
N284551	W961822	PSX	PALACIOS
N274135	W971736	KNGP	NAS CORPUS
N273026	W974835	KNQI	NAS KINGSVILLE
N332749	W901638	SQS	SIDON
N332939	W900504	KGWO	GREENWOOD LEFL.
N344040	W921050	LIT	LITTLE ROCK
N345500	W920900	KLRF	LITTLE ROCK AFB
N352318	W941617	FSM	FORT SMITH
N352012	W942203	KFSM	FORT SMITH RGNL

PAGE 11: WEST, NORTH, EAST			
LAT	LONG	ID	DESCRIPTION
N331522	W924438	ELD	EL DORADO
N333050	W940424	TXK	TEXARKANA
N331553	W873221	LDK	CRIMSON-TCL
N331314	W873641	KTCL	TUSCALOOSA RGNL
N334012	W865359	VUZ	VULCAN
N333346	W864512	KBHM	BIRMINGHAM INTL
N345740	W850912	GQO	CHOO CHOO
N350207	W851213	KCHA	LOVELL FLD
N355417	W835341	VXV	VOLUNTEER
N354839	W835938	KTYS	MC GHEE TYSON
N360813	W864105	BNA	NASHVILLE
N375542	W874545	PXV	POCKET CITY
N380213	W873157	KEVV	EVANSVILLE RGNL
N350054	W895900	MEM	MEMPHIS
N322245	W862206	MXF	MAXWELL

PAGE 12: EAST, SOUTH			
LAT	LONG	ID	DESCRIPTION
N321320	W861911	MGM	MONTGOMERY
N321802	W862338	KMGM	MONTGOMERY RGNL
N304333	W882133	SJI	SEMMES
N302424	W890436	GPT	GULFPORT
N302425	W885546	KBIX	KEESLER AFB
N303736	W880405	KBFM	MOBILE DOWNTOWN
N304128	W881434	KMOB	MOBILE RGNL
N304934	W864044	CEW	CRESTVIEW
N302128	W871859	NPA	PENSACOLA
N302824	W871111	KPNS	PENSACOLA RGNL
N300426	W853421	PAM	TYNDALL
N303322	W842226	SZW	SEMINOLE
N302347	W842101	KTLH	TALLAHASSEE RGNL
N294124	W821618	KGNV	GAINESVILLE RGNL
N281405	W803636	KCOF	PATRICK AFB

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PAGE 13: JAX CQ			
LAT	LONG	ID	DESCRIPTION
N320000	W802800	W1	NIP 034/123
N304416	W805843	W2	NIP 056/47
N304750	W801124	W3	NIP 072/84
N303500	W801100	W4	NIP 078/80
N303300	W805800	W5	NIP 067/41
N295113	W810037	W6	NIP 128/41
N285156	W802515	W7	NIP 147/105
N302331	W812525	KNRB	MAYPORT NAS
N301415	W814050	KNIP	NAVY JAX
N301300	W815230	KVQQ	CECIL FIELD
N302650	W804718	JAWSS	JAWSS
N301213	W805801	SNOOC	SNOOC
N302939	W814116	KJAX	JAX INTL
N320740	W811208	KSAV	SAVANNAH INTL
N322844	W804302	KNBC	BEAUFORT MCAS

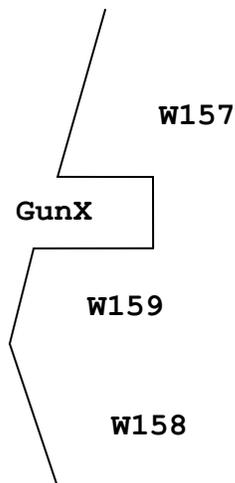
PAGE 14: WHITEHOUSE, RTE TO CECIL			
LAT	LONG	ID	DESCRIPTION
N302126	W815302	11NEN	RW 11 WHITEHOUSE
N302102	W815219	29NEN	RW 29 WHITEHOUSE
N321320	W861911	MGM	MONTGOMERY
N303322	W842226	SZW	SEMINOLE
N303016	W823310	TAY	TAYLOR

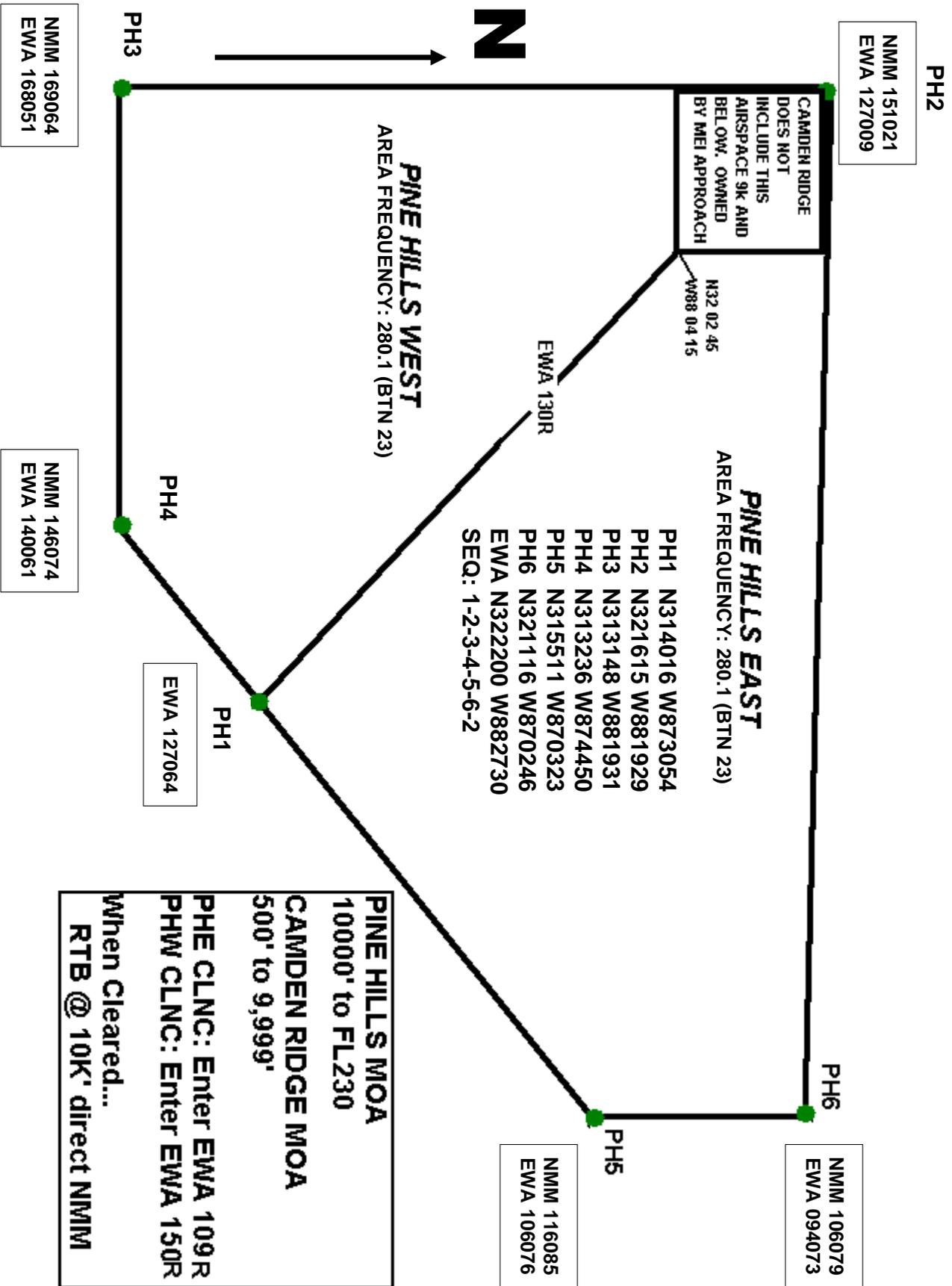
Warn Area: W1-W2-W3-W4-W5-W6-W7

Recommended Waypoint Sequence Plan for CQ in Jacksonville OpArea:

- | | | | |
|---|----|----|-----------------------------|
| 1 | W1 | 6 | W6 |
| 2 | W2 | 7 | W7 |
| 3 | W3 | 8 | KNRB (or secondary divert) |
| 4 | W4 | 9 | KNIP (or primary divert) |
| 5 | W5 | 10 | KVQQ |

Sequence Plan For Whiskey Area
1-2-3-4-5-6-7





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ENTRY SOP:

Entry corridor is direct FOGGY, then east of R-007 (19L wpt).
Remain at/below 10K in entry corridor until coordinating on BTN 8 with other aircraft.

EXIT SOP:

Exit corridor is west of R-325 and east of R-315 (19L wpt)
Coordinate on BTN 8 before leaving working area.

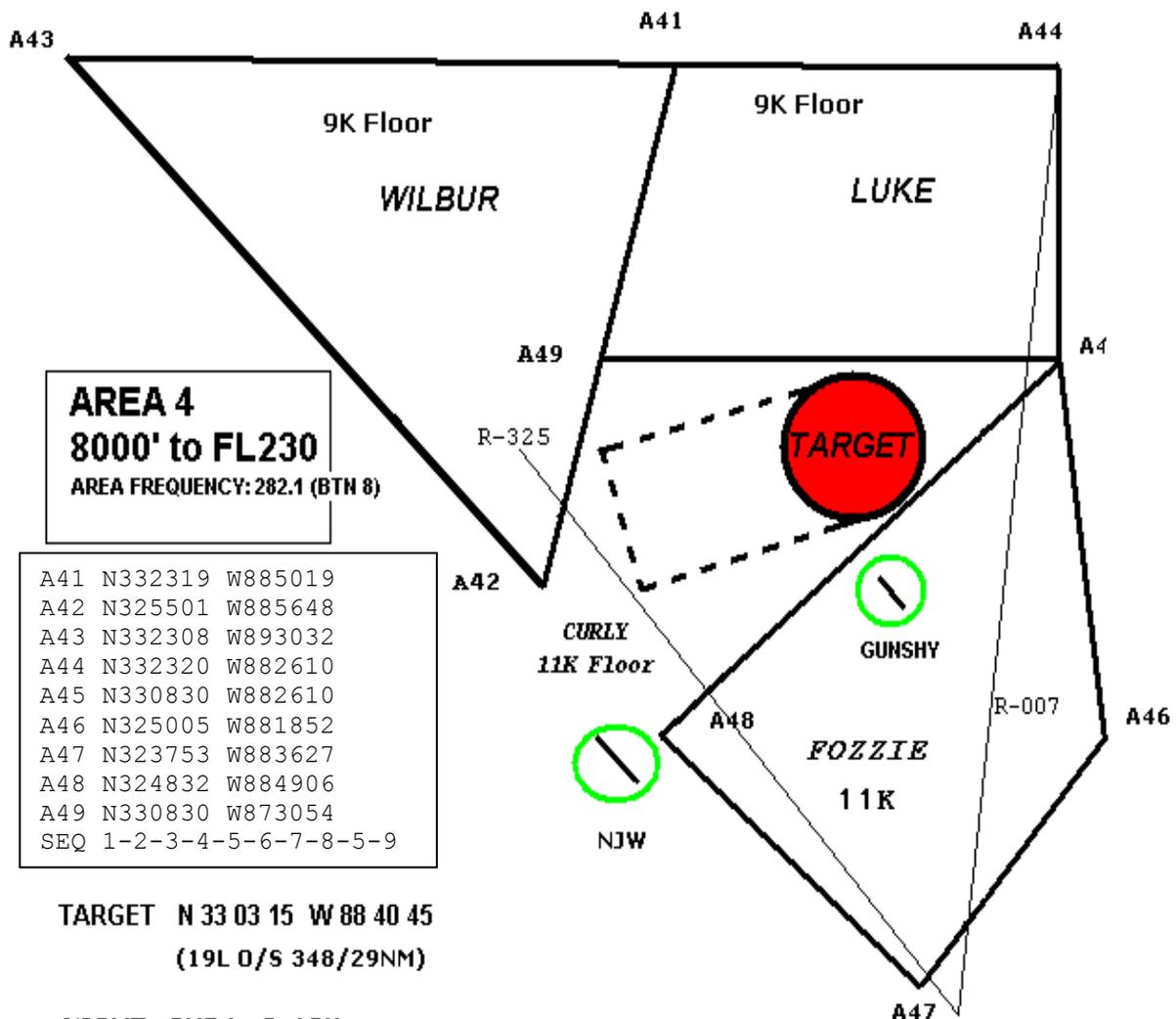
FOZZIE ORBIT WEST OF R-007 VMC AT/ABOVE 9K TILL CLEARED FOR RECOVERY BY CENTER.

LUKE FOLLOW WILBUR/CURLY BORDER TO THE EXIT CORRIDOR VMC AT/ABOVE 9K.

WILBUR DEPART WORKING AREA IN EXIT CORRIDOR VMC AT/ABOVE 9K.

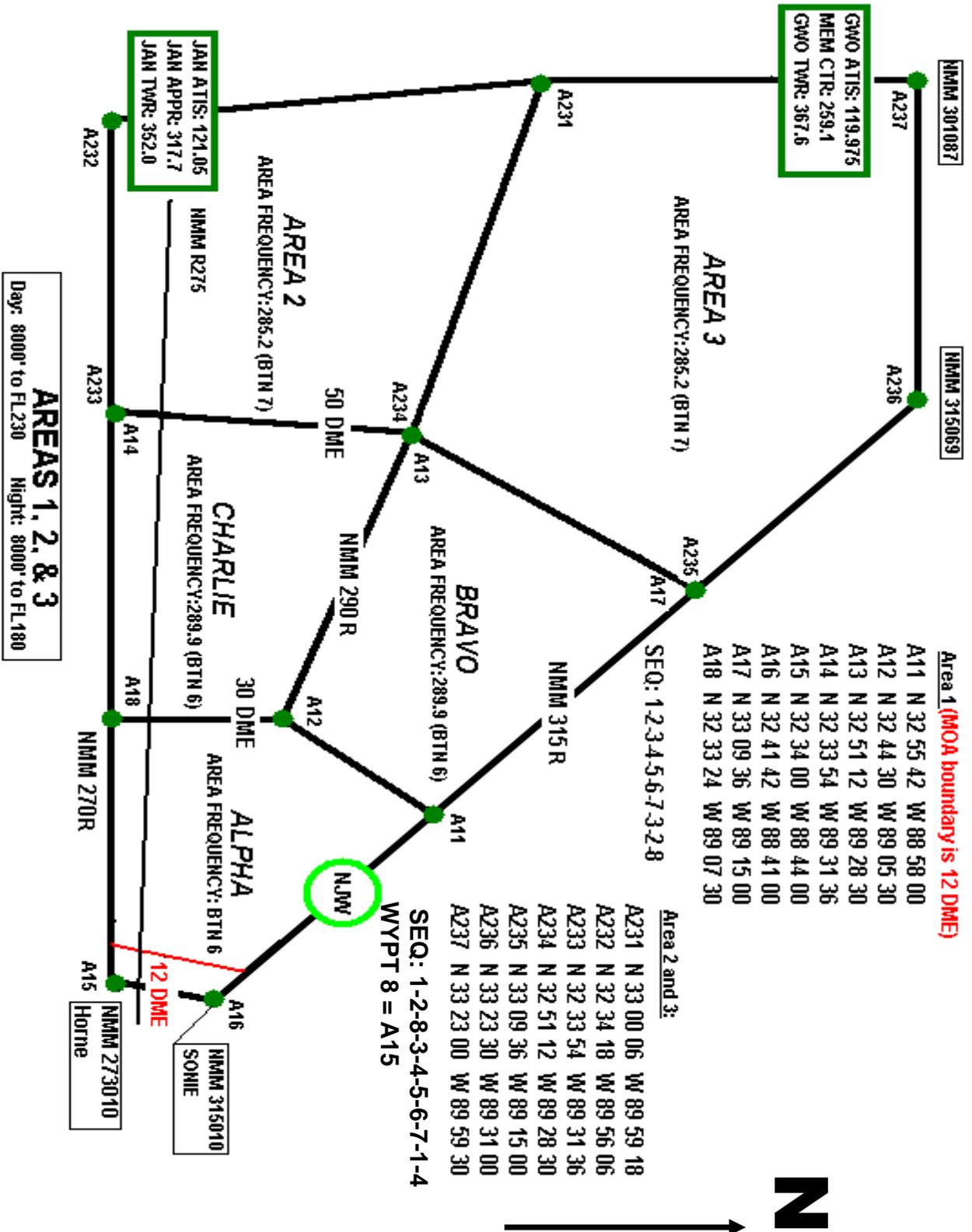
CURLY DEPART WORKING AREA IN EXIT CORRIDOR VMC AT/ABOVE 9K.

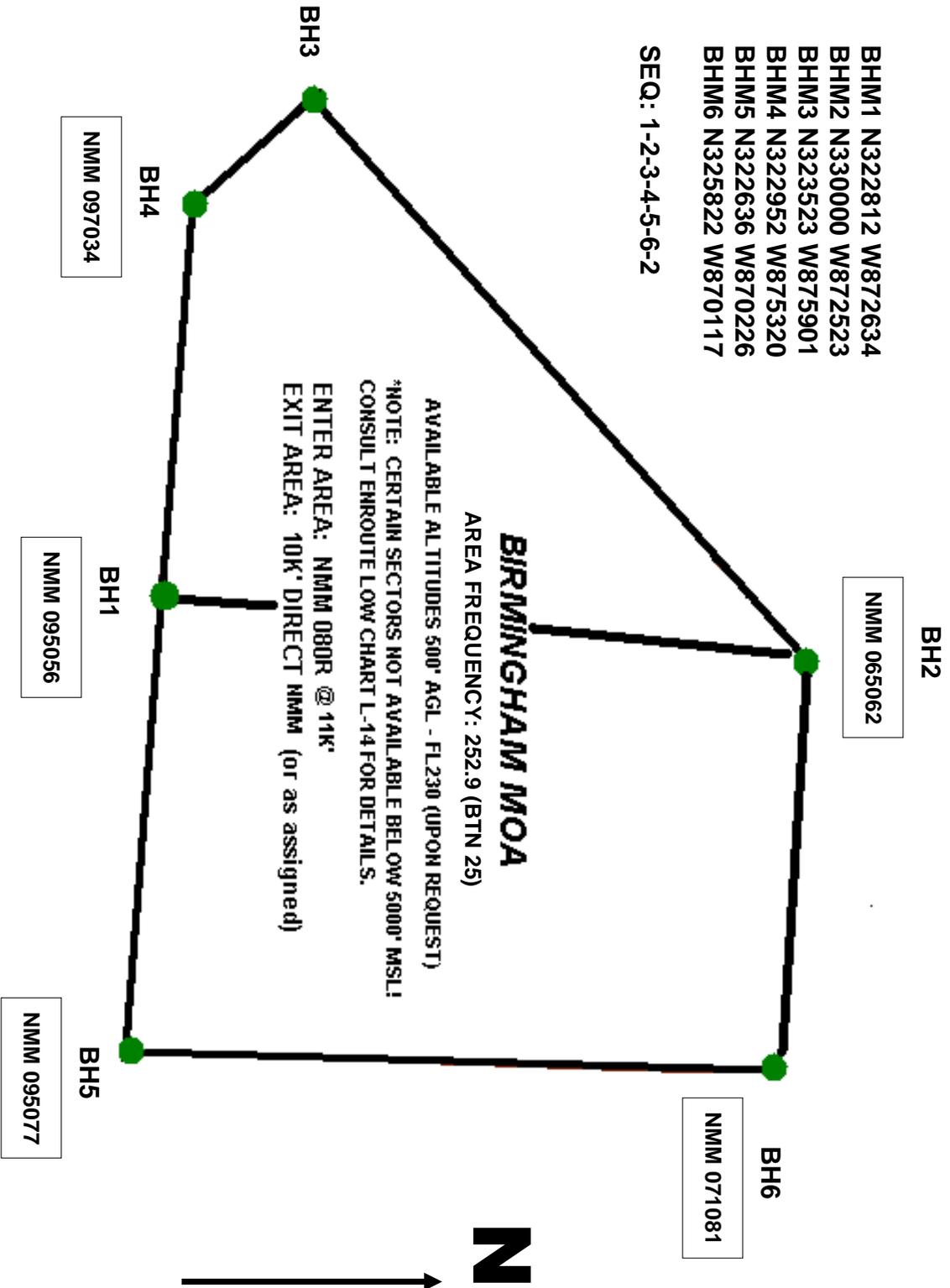
Once cleared for Random or Bravo recovery by Center, descend to 8K and proceed direct to field under IFR clearance. Center assumes responsibility for traffic deconfliction at 8K.



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ENTRY SOP: Enter @ HORNE & proceed to desired sub-area either South of NMM R275 or at 10K', but only with Comms and Clearance from other Occupants.





BHM1 N322812 W872634
BHM2 N330000 W872523
BHM3 N323523 W875901
BHM4 N322952 W875320
BHM5 N322636 W870226
BHM6 N325822 W870117

SEQ: 1-2-3-4-5-6-2

DEPARTURE PROCEDURES

VFR DEPARTURE PROCEDURES

1. VFR departure procedures are used for flights not requiring MOA related activity, i.e. flights entering the landing pattern or proceeding to Key or Bravo Fields.
2. Contact Ground Control and request a Grey Oak Departure. A 1200 squawk will be assigned.
3. Upon initial contact advise Ground Control of intentions on departure; i.e., turn to downwind or departing to re-enter for the break.

IFR DEPARTURE PROCEDURES

1. All aircraft should utilize IFR departures to the MOAs. IFR departures shall be in accordance with current Local Instrument Departures (LIDs), or as directed by Meridian Departure Control. All aircraft should receive an ATC clearance from Clearance Delivery. If an alternate field is required due to weather, the instructor shall advise Clearance Delivery of the planned alternate field and ETE.
2. Student solo pilots shall report "SOLO" with their call sign to Ground, Tower, and Departure / Approach Control.
3. All aircraft shall utilize the backup Union & Dancy departures when the NMM TACAN is inoperative.
4. All IFR departures leaving the local area shall utilize the preferred routing departures listed below to de-conflict with local MOA traffic.

PREFERRED DEPARTURE ROUTING

Preferred Departure Routing is utilized to provide separation between participating and non-participating MOA traffic. All CTW-1 aircraft and transient aircraft SHALL utilize the following points when filing out of the NAS Meridian complex.

- a. North & Northeast: VUZ → desired route
- b. East & Southeast: EWA → EWA 090043 → desired route
- c. West & Northwest: MEI → JAN → desired route
- d. South & Southwest: MEI → desired route

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STEREO/CODED DEPARTURES (Put RTB Flight Plans on Request w/ RTB time)

<u>STEREO</u>	<u>DEPARTURE</u>	<u>ROUTING</u>	<u>DEST</u>	<u>AREA</u>
BRIM	MEI	NMM007010/D0+40 MEIWMOA	NMM	4
BIN	NMM	VECTORS TO GCA BOX AT 2000'	NMM	
CAMR2	NMM	EWA EWA127045/D0+30 EWA	NMM	CAMDEN
CARP	NMM	UNION1 UNION/D0+40 MEIWMOA	NMM	1, 2, 3
COSTL1	NMM	GPT320027 GPT/D0+10	GPT	
COSTL1R	GPT	DSOTO MEI/D0+10 MEI	NMM	
COSTL2	NMM	J31 HRV HRV149030 NBG/D0+10	NBG	
COSTL2R	NBG	DSOTO MEI/D0+10 MEI	NMM	
CUDA	NMM	DANCY/D0+40 MEIWMOA	NMM (NIGHT)	4
DESOTO	NMM	MEI170035	MEI	
EAGLE1	NMM	UNION1 UNION/D0+40 MEIWMOA	MEI	1, 2, 3
EAGLE1R	MEI	NMM273010/D0+20 MEIWMOA	NMM	1, 2, 3
HAWK0	NMM	MEI097036 VFR	VR1030	
HAWK1	NMM	NMM015015 VFR	VR1031	
HAWK2	NMM	UNION JAN300029 VFR	VR1032	
HAWK2R		JAN300029	NMM	
HAWK3	NMM	MEI356009 VFR	VR1033	
HAWK5	NMM	TCL TCL015025 HAB105016 VFR	VR1050	
HAWK5R	NMM	TCL308017 TCL225015	NMM	
INDIA1	NMM	MEI JAN/D0+10	JAN	
INDIA1R		JAN DSOTO MEI	NMM	
IR44	NMM	NMM274031 IR044 NMM339033 VFR	NMM	
MARLIN	NMM	EWA EWA150040/D0+40 EWA150050	NPA	PHW
MOAB	NJW	NMM318020 NMM318035/D0+40	NMM	1, 2, 3, 4
NMMB	NJW	NMM310010	NMM	
PENSY	NMM	EWA SJI NPA213014	NPA	
PIGMY	NMM	PIGMY	NMM	
PIKE	NMM	UNION1 UNION/D0+20 MEIWMOA	NMM (NIGHT)	1, 2, 3
SHAD	NMM	DANCY/D0+40 MEIWMOA	NMM	4
SHARK	NMM	NMM348024/D0+40 R4404	NMM	R4404
SHARKB	NJW	NMM348024/D0+40 R4404	NMM	R4404
SKATE	NMM	EWA EWA109050/D0+40 EWA	NMM	PHE
SKIP	NMM	EWA EWA150040/D0+40 EWA	NMM	PHW
SNAPPER	NMM	UNION/D0+40 MEIWMOA SQS MEM225030	MEM	NQA
SPIN	NMM	DANCY/D0+40	NMM	4
STING	NMM	NMM080030/D0+30	NMM	BHM
TANGO	NMM	UNION1 UNION NMM273064 IGB250063		
		IGB250031	NMM	
TANGOA	NMM	UNION1 UNION NMM273064 NMM301070		
		NMM327054	NMM	
TARPON	NMM	EWA EWA150040/D0+45 EWA130050 MVC		
		J37 MGM	MXF	PHW
TIDE1	NMM	EWA EWA090043 LOMAX MGM/D0+10	MGM	
TIDE1R	MGM	EWA DSOTO MEI/D0+10 MEI	NMM	
TIDE2	NMM	ALICE TCL/D0+10	TCL	
TIDE2R	TCL		NMM	
TIGER1	NMM	EWA EWA150040/D0+40	MEI	PHW
TIGER1R	MEI	EWA EWA150040/D0+40 EWA	NMM	PHW
TUNA	NMM	NMM080030/D0+30	NMM (NIGHT)	BHM

NOTE ON STEREO ROUTES: When a NAVY 1A1XX callsign is specified the TYPE of departure must also be requested from clearance delivery. For example: "Clearance, Navy 1A153, DSOTO departure on request". When the callsign is specific to the route requested (CARP, BIN, or SHAD for example) the type of departure is implied and need not be specified.

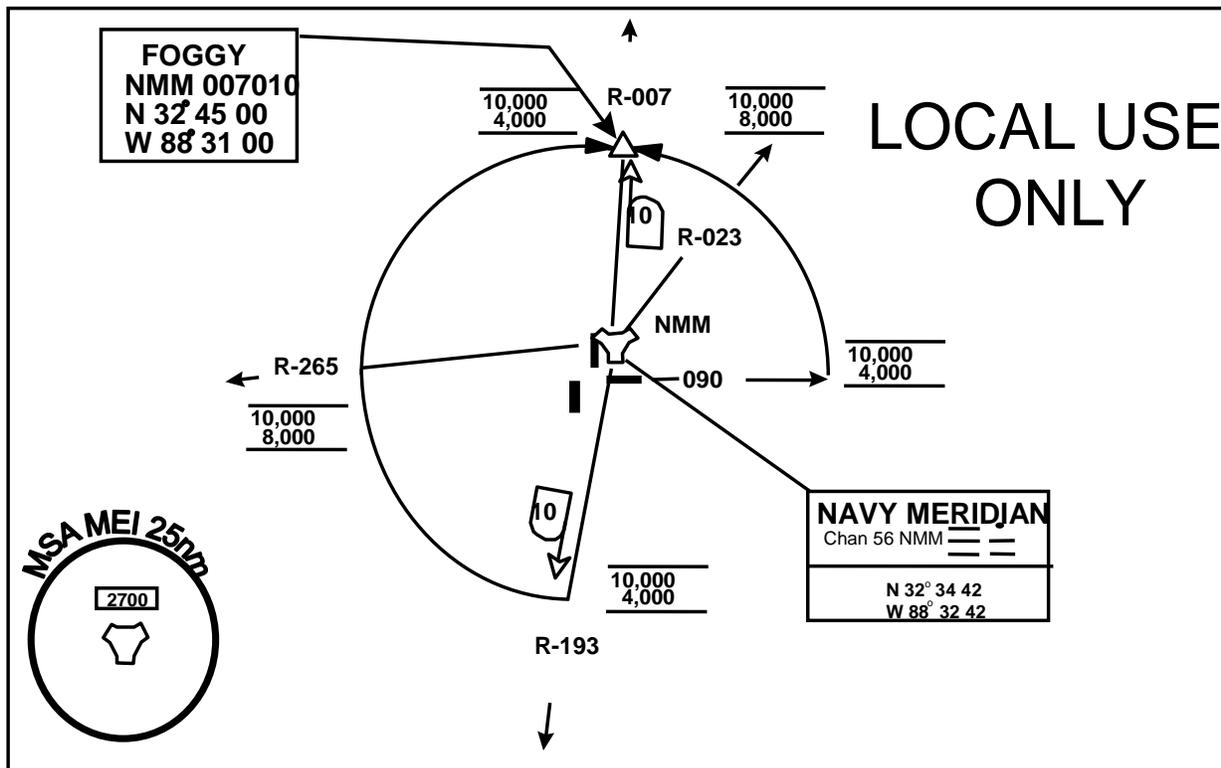
OPNAVINST 3710.7 IFR FILING CRITERIA CHART

DESTINATION WEATHER ETA plus and minus one (1) hour	ALTERNATE WEATHER ETA plus and minus one (1) hour		
O-O up to but not including published minimums	3,000 - 3 or better		
Published minimums up to but not including 3,000 - 3 (single-piloted absolute minimums 200 - 1/2)	NON- PRECISION	PRECISION	
		ILS	PAR
	*Published minimums plus 300-1	*Published minimums plus 200-1/2	*Published minimums plus 200-1/2
3,000 - 3 or better	No alternate required		
*In the case of single-piloted or other aircraft with only one operable UHF/VHF transceiver, radar approach minimums may not be used as the basis for selection of an alternate airfield.			

AREA 4 DEPARTURE

MERIDIAN NAS (MCCAIN FIELD) (KNMM)
MERIDIAN, MISSISSIPPI

DANCY DEPARTURE



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1R

OUTBOUND NMM R-007. CROSS NMM 10 DME BETWEEN 4,000 AND 10,000 FEET. CROSS NMM 13 DME BETWEEN 8,000 AND 10,000 FEET.

TAKE-OFF RWY 19R

RUNWAY HEADING INTERCEPT NMM R-193 TO THE 10 DME ARC BETWEEN 4,000 AND 10,000 FEET. TURN RIGHT VIA 10 DME ARC. CROSS NMM R-265 BETWEEN 8,000 AND 10,000 FEET. INTERCEPT AND PROCEED OUTBOUND VIA NMM R-007.

TAKE-OFF RWY 10

HEADING 090 INTERCEPT NMM 10 DME ARC BETWEEN 4,000 AND 10,000 FEET. TURN LEFT VIA 10 DME ARC. CROSS NMM R-023 BETWEEN 8,000 AND 10,000 FEET. INTERCEPT AND PROCEED OUTBOUND VIA NMM R-007.

BACKUP DANCY DEPARTURE

FLY RUNWAY HEADING, EXPECT RADAR VECTORS TO "RAINY" (MEI 020047).

MAINTAIN 7000', EXPECT 10,000' 10 MINUTES AFTER DEPARTURE.

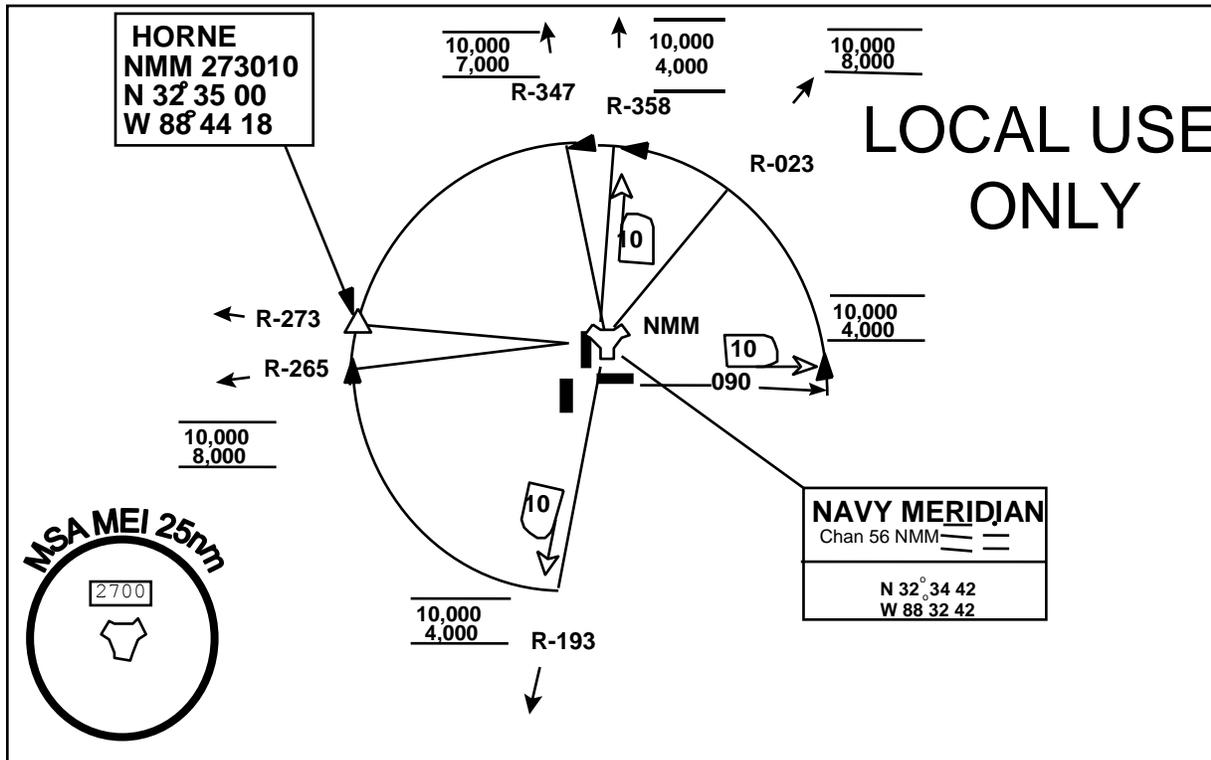
DANCY DEPARTURE

MERIDIAN NAS (MCCAIN FIELD) (KNMM)
MERIDIAN, MISSISSIPPI

AREA 1 DEPARTURE

UNION DEPARTURE

MERIDIAN NAS (MCCAIN FIELD) (KNMM)
MERIDIAN, MISSISSIPPI



DEPARTURE ROUTE DESCRIPTION

TAKE-OFF RWY 1R

OUTBOUND NMM R-358. INTERCEPT NMM 10 DME ARC BETWEEN 4,000' AND 10,000'. TURN LEFT VIA 10 DME ARC. CROSS NMM R-347 BETWEEN 7,000' AND 10,000'. INTERCEPT AND PROCEED OUTBOUND VIA NMM R-273.

TAKE-OFF RWY 19R

RUNWAY HEADING INTERCEPT NMM R-193 TO THE 10 DME ARC BETWEEN 4,000' AND 10,000'. TURN RIGHT VIA 10 DME ARC. CROSS NMM R-265 BETWEEN 8,000' AND 10,000'. INTERCEPT AND PROCEED OUTBOUND VIA NMM R-273.

TAKE-OFF RWY 10

HEADING 090 INTERCEPT NMM 10 DME ARC BETWEEN 4,000' AND 10,000'. TURN LEFT VIA 10 DME ARC. CROSS NMM R-023 BETWEEN 8,000' AND 10,000'. INTERCEPT AND PROCEED OUTBOUND VIA NMM R-273.

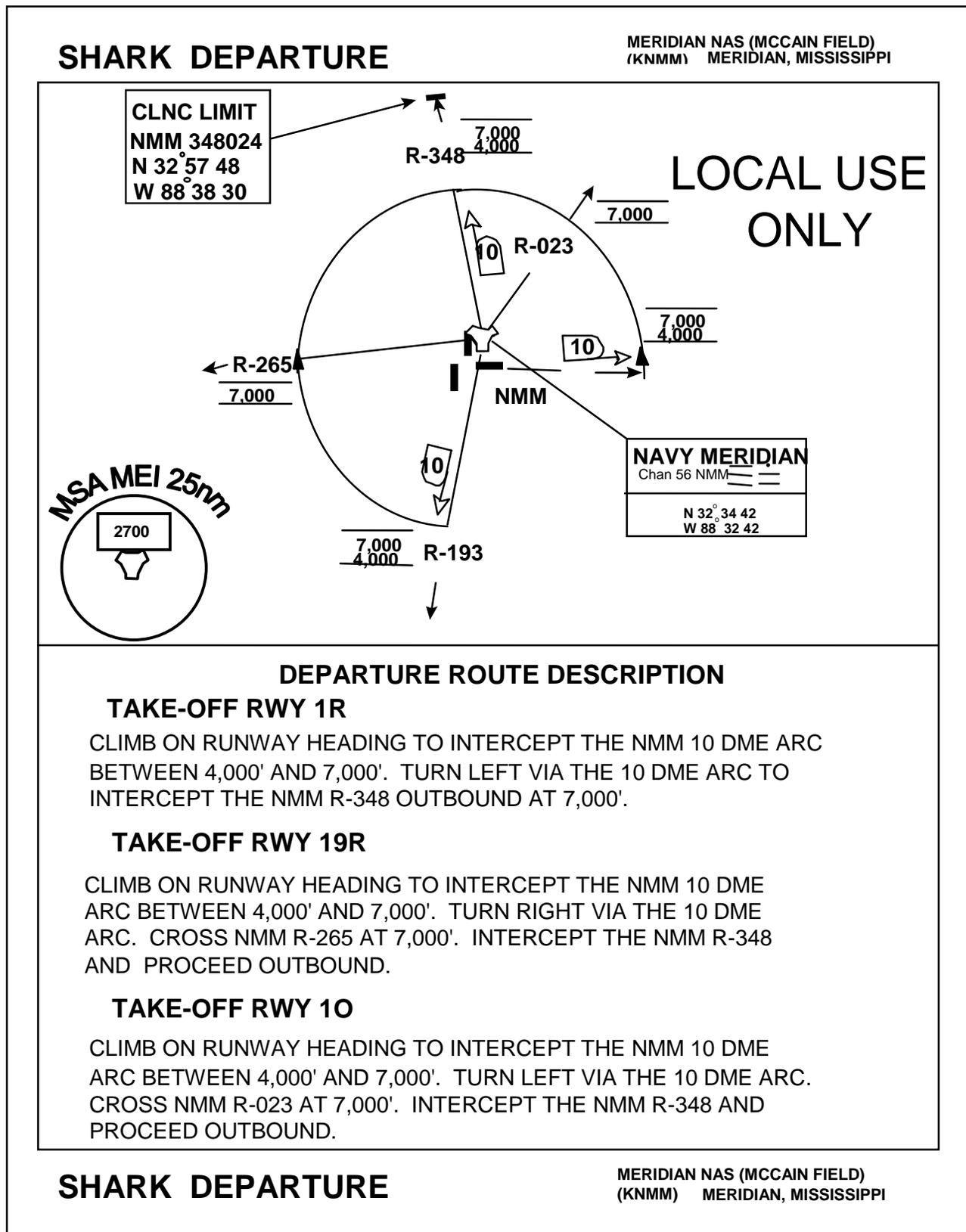
BACKUP UNION DEPARTURE

FLY RUNWAY HEADING, EXPECT RADAR VECTORS TO BUGLE (MEI 303022). MAINTAIN 7000', EXPECT 10,000' 10 MIN AFTER DEPARTURE.

UNION DEPARTURE

MERIDIAN NAS (MCCAIN FIELD) (KNMM)
MERIDIAN, MISSISSIPPI

TARGET AREA DEPARTURE



AREA ARRIVAL PROCEDURES

TYPICAL ARRIVAL PROCEDURES

1. **RTB from MOAs**. Aircraft shall have received recovery clearance prior to leaving their assigned working area or descending below 9000' MSL. MOA airspace at 8000' MSL shall be used only for recoveries. All aircraft shall advise Approach on initial contact of the current ATIS code and type of recovery requested. Avoid when practicable the cities of Meridian, DeKalb and the built up areas of NAS.

NOTE: If VFR-On-Top, contact Center above the overcast for the recovery in order to receive traffic advisories.

- a. **RANDOM / BRAVO RECOVERY**: Coordinate with other aircraft in the area, descend to 9000' MSL in working area, contact Center and request the desired recovery. Once cleared, descend to 8000' MSL or as assigned and proceed direct NMM/NJW. Center should hand you off to Meridian Approach prior to 25 miles from either airfield for Stage II radar service to the approach or VFR traffic pattern.
- b. **SHARK RECOVERY**: After join-up in R-4404 maintain VFR between 4000' and 6000' MSL and contact Meridian Approach. Flight leads shall advise on initial contact the number of aircraft in the flight with actual/simulated hung ordnance. Aircraft with actual hung ordnance will execute a straight-in full stop landing. Actual hung ordnance A/C has priority. **Avoid populated areas.**

2. **IMC Arrivals**

- a. **GCA or ILS**: Normally a 2000' MSL Downwind, Base and dogleg to Final Approach Course.
 1. **SIMULATED Emergency Fuel** (vectored at 1,800' MSL) / **Low Oil GCA**: Advise controller of any planned groundspeed in excess of 150 knots. Expect normal handling with a 30 seconds-to- glide slope gear warning if requested.
- b. **GCA TO DOWNWIND**: May be flown clean at 200 knots or dirty (half flaps). Dirty approach is assumed - advise controller if intention is a clean approach. Expect instructions to fly runway heading, maintain VFR, and contact tower upon completion of approach

3. **VMC Arrivals**

- a. **VISUAL STRAIGHT IN APPROACH**: Request a "VISUAL Straight In" from Approach Control. Enter a 5 NM Initial at 1500' AGL on the extended centerline of the assigned runway.
- b. **VISUAL OVERHEAD**: (Standard left break is normal recovery at Meridian). Report a 5 NM Initial at 3000' MSL and lined up on non-pattern side of the landing runway. Descend at 5 NM to 1400' MSL. Offset 200-500' laterally to the right to deconflict with pattern traffic in the approach turn, off touch & go's, and on upwind. Report the "Numbers" and execute a level BREAK; Left traffic for left runways, right traffic for right runways (or as Tower directs). Established on downwind, descend to 900' MSL (600' AGL).

NOTE: A "Carrier Break" at 1100' MSL (800' AGL) is approved without request. Tower will direct a standard overhead if a traffic conflict exists, or if BASH condition requires.

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- c. STANDARD DOWNWIND ENTRY: Contact Approach and request a “Downwind Entry.” If approved, enter the Class D Airspace at 300’ above the pattern altitude. Determine interval for sequencing and enter the downwind traffic pattern 45 degrees off-heading. Descend to pattern altitude after established downwind.
- d. PRECAUTIONARY APPROACHES FOR CTW-1 AIRCRAFT: All Aircraft requesting a PA shall do so upon initial contact with Meridian Approach and/or Tower for sequencing.
 - 1. Straight-in PA: Enter a 5 NM Initial at 5,000’ AGL.
 - 2. Stuck-Throttle Approach: Enter a 5 NM Initial at 1500’ AGL.
 - 3. Abeam PA: Enter a 1.5 abeam position at 3,000’ AGL.
 - 4. Overhead PA (Parallel & Perpendicular): Enter High Key at 5,000’ AGL.

NOTE: Tower may deny practice PAs to the left runway when more than 6 aircraft are in the landing pattern, to include break and straight-in traffic inside the initial. Aircraft with instructors aboard should consider utilizing the right runway for practice PA’s in order to alleviate congestion. A full stop on the right is recommended unless traffic permits re-entry to the left pattern.

- e. DELTA / DELTA EASY PATTERN: In the event of a temporary runway closure or an aircraft emergency, the Tower may instruct aircraft in the Class D Airspace to DELTA. All aircraft shall maintain their relative position in either DELTA pattern. No transmissions are required unless directed by Tower.
 - 1. If less than a five-minute delay is anticipated, the Tower will direct aircraft to DELTA EASY. All aircraft will normally remain dirty (speed brakes - in), maintain pattern altitude, airspeed, interval, and fly a normal racetrack pattern (slightly left of runway on upwind) until directed by Tower to reenter the normal traffic pattern. The first A/C abeam once cleared by Tower shall make a normal abeam call with intentions.
 - 2. If more than a five-minute delay is anticipated, the Tower will direct the pattern to DELTA. All pattern aircraft will then clean up, climb to 2000’ MSL (or 500’ below overcast) at 200 KIAS, maintain interval and fly a racetrack pattern (slightly left of runway on upwind) until directed by Tower. On signal “Charlie”, the first aircraft abeam the numbers will descend to 1400’ MSL and intercept a 3 NM initial for the break. Normal entry procedures apply from that point.

NOTE: All aircraft will make crosswind and abeam position calls (if required) while in the DELTA pattern.

- f. BASH RESTRICTIONS:
 - BHC GREEN (Low) – Unrestricted normal operations.
 - BHC YELLOW (Moderate) – Carrier break not authorized.
 - BHC RED (Severe) – Pattern closed to affected runway, except in emergencies. Coordinate runway change, if able. If affected runway is required, a full stop landing shall be performed.

R4404A/B/C TARGET PROCEDURES

1. Altitude enroute to the target is 7000' MSL, weather permitting, or an appropriate VFR altitude beneath the overcast. Aircraft may cancel IFR prior to clearance limit (NMM 348024) and continue the mission in VMC conditions. If unable to cancel and maintain VMC, the flight lead shall request holding instructions for further clearance and EFC time. When weather dictates, a lower departure altitude may be requested from tower. Aircraft assigned an altitude below 5000' MSL shall intercept the 10 DME arc at the assigned altitude.
2. After join-up in R-4404 (off target rendezvous), maintain VFR between 4000' and 6000' MSL and contact Meridian Approach for RTB altitude assignment. The flight leader shall advise Approach upon initial contact the number of aircraft in the flight with actual/simulated hung ordnance.

TARGET INFORMATION

R-4404A	Surface to 11,500 MSL
R-4404B	1200 AGL to 11,500MSL
R-4404C	11,500 MSL to 14,500 MSL

Target BRG/DIST and Bulls eye LAT/LONG:

NMM (CH 56)	348029
MEI (CH 117) 010041	
Bullseye	N3303 W8840

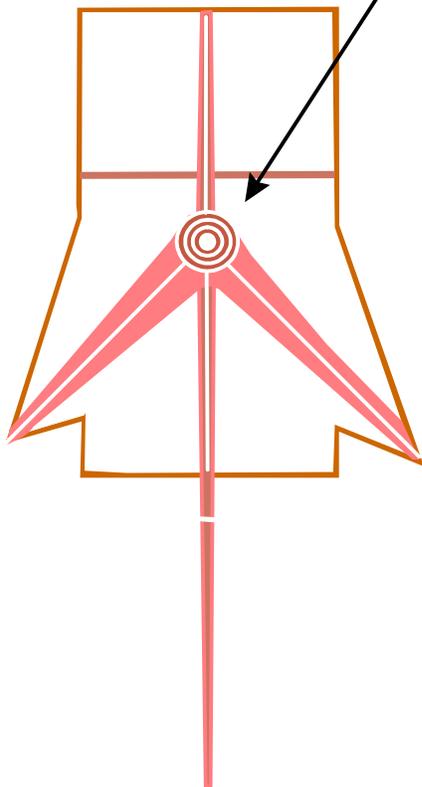
NORDO PROCEDURES

Fly 2000' above the pattern or rendezvous altitude (low-pattern weather permitting). Remain at altitude until the off target rendezvous is complete, then join as Dash-2 on the inside wing of the lead aircraft. If established in the low pattern and the ceiling precludes orbiting overhead, the NORDO aircraft will fly to the roll in point and over-fly the target rocking wings at pattern airspeed and altitude. The NORDO aircraft will turn to the abeam position maintaining interval and establish a 30 degree AOB turn at 250 KIAS. The lead aircraft will join on the NORDO and assume the lead.

SEARAY TARGET

NMM 348029
FREQ 227.825 (P)
360.9 (S)
ELEV 238' MSL
33°03 15 N 88°40 45 W

BOMB TARGET
rings at..... 75'
..... 150'
..... 300'



RUN IN HEADING
045°

R-4404A	SFC-11,500MSL
R-4404B	1200AGL-11,500MSL
R-4404C	11,500MSL-14,500MSL

R4401 A/B SHELBY EAST TARGET PROCEDURES

1. Shelby East Range is a manned positive control air to ground impact area and is defined by the horizontal area East of HWY 29 inside R-4401. Altitude enroute to the target is 16000' MSL, weather permitting, or an appropriate VFR altitude beneath the overcast. Aircraft may cancel IFR prior to clearance limit (MEI182063) or (N3120W08857) and continue the mission in VMC conditions with flight following. If unable to contact Shelby East Range control on primary 228.85 maintain VMC and attempt to contact Shelby East Range Control on secondary frequency 228.00. The flight lead shall hold inside the Desoto 1 MOA but remain outside R-4401 until cleared by Shelby East Range control. Shelby East Range Control will handle the activation R-4401 as well as the Desoto 1 MOA. Check-in With Shelby East Range should include Call-sign, #of T-45s in the flight, # of Mk-76s per aircraft, Run-In Heading, and Target requesting. Check in should be completed 15-20 miles north of the range. Each aircraft will call "Position#, In North" and will there after be told by Range Control either "Cleared Hot" or "Continue Dry"
Only an aircraft "Cleared Hot" will be allowed to release ordnance.
2. After join-up in R-4401 (off target rendezvous), Climb Northbound to a VFR cruising altitude. Flight leads will fence out the flight on Range Control Freq. prior to exiting the northern boundary of the Desoto 1 MOA and Check off with Shelby Range Control with # of total Mk-76s expended and flight "Switches Safe" call. Lead will call Houston Center 281.5 or Memphis Center 351.7 for VFR flight following or IFR pickup to NMM. The flight leader shall advise MEI Approach upon initial contact the number of aircraft in the flight with actual/simulated hung ordnance.

TARGET INFORMATION

R-4401A	Surface to 4000 MSL
R-4401B	4000AGL to 18,000MSL
Desoto 1 MOA	500AGL to 10,000MSL

Target BRG/DIST and Bulls eye LAT/LONG:

MEI (CH 117X)	182075
NMM (CH 56)	193089
Bullseye	N310757 W0885849

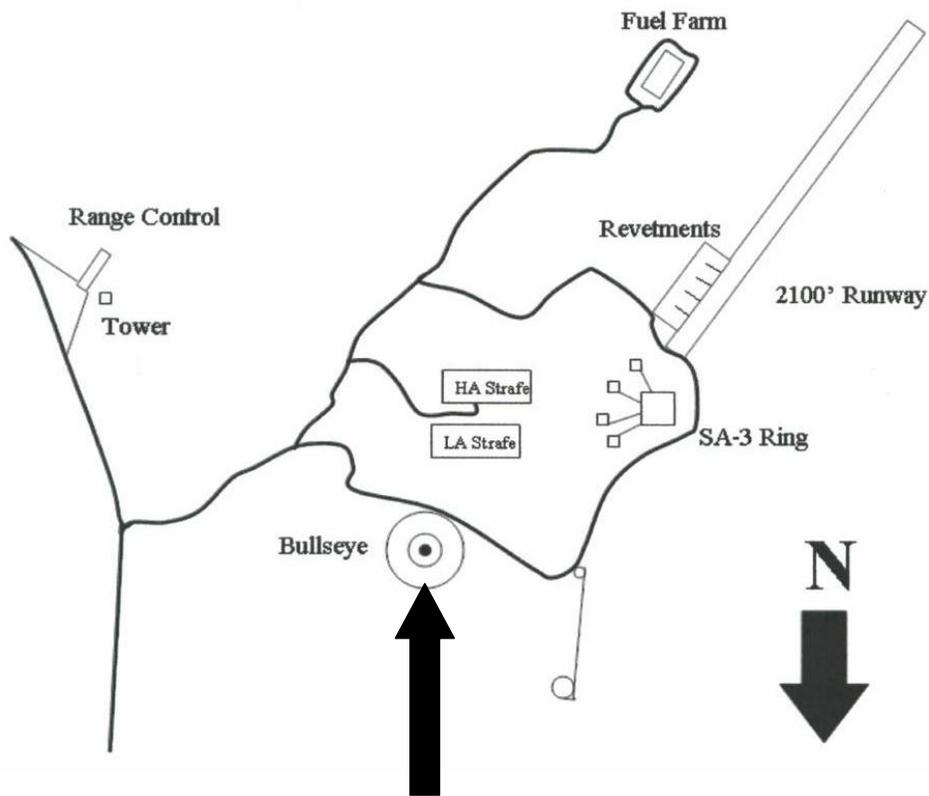
NORDO PROCEDURES

Same as R-4404 procedures.

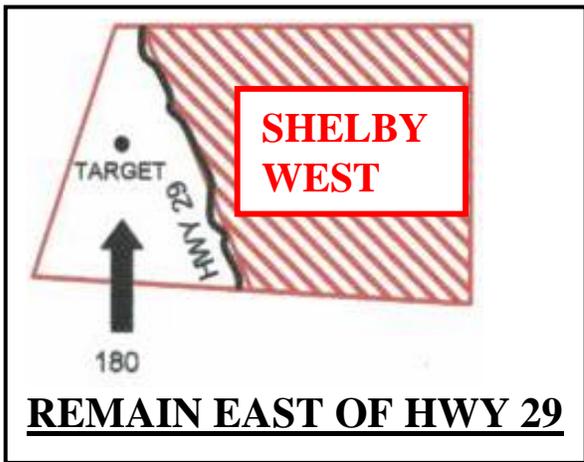
SHELBY EAST TARGET

FREQ:	228.85 (P)
	228.00 (S)
ELEV:	248' MSL
N31°07'57"	W088°58'49"

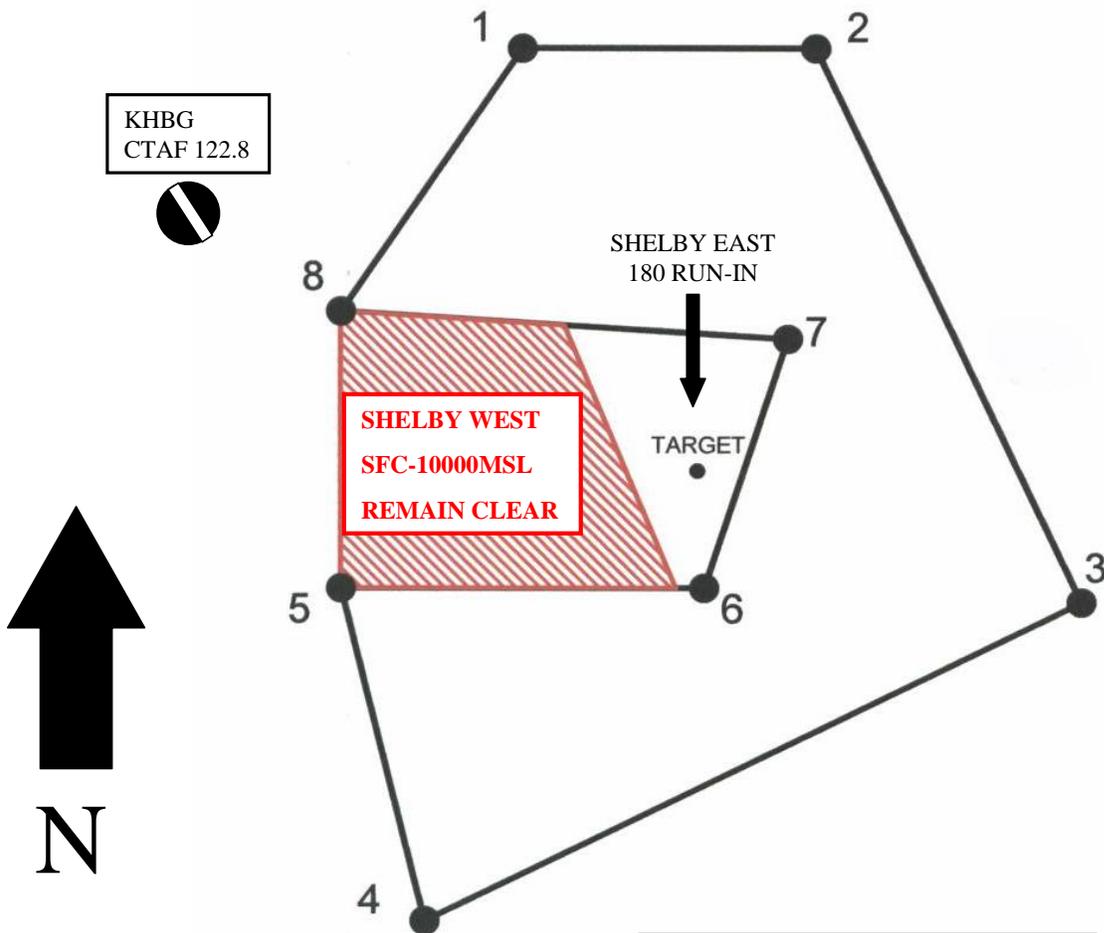
BOMB TARGET
Rings
at.....75'
.....150'



RUN IN 180°



DESOTO1 MOA / R4401



SEQUENCE STRING

1 - 2 - 3 - 4 - 5 - 6 - 7 -
8 - 1

- | | |
|---------------|-------------|
| 1. N31°20'34" | W089°04'48" |
| 2. N31°20'34" | W088°54'35" |
| 3. N31°04'00" | W088°45'36" |
| 4. N30°54'32" | W089°08'05" |
| 5. N31°04'34" | W089°11'08" |
| 6. N31°04'34" | W088°58'14" |
| 7. N31°11'46" | W088°55'22" |
| 8. N31°12'55" | W089°11'05" |

BULL:

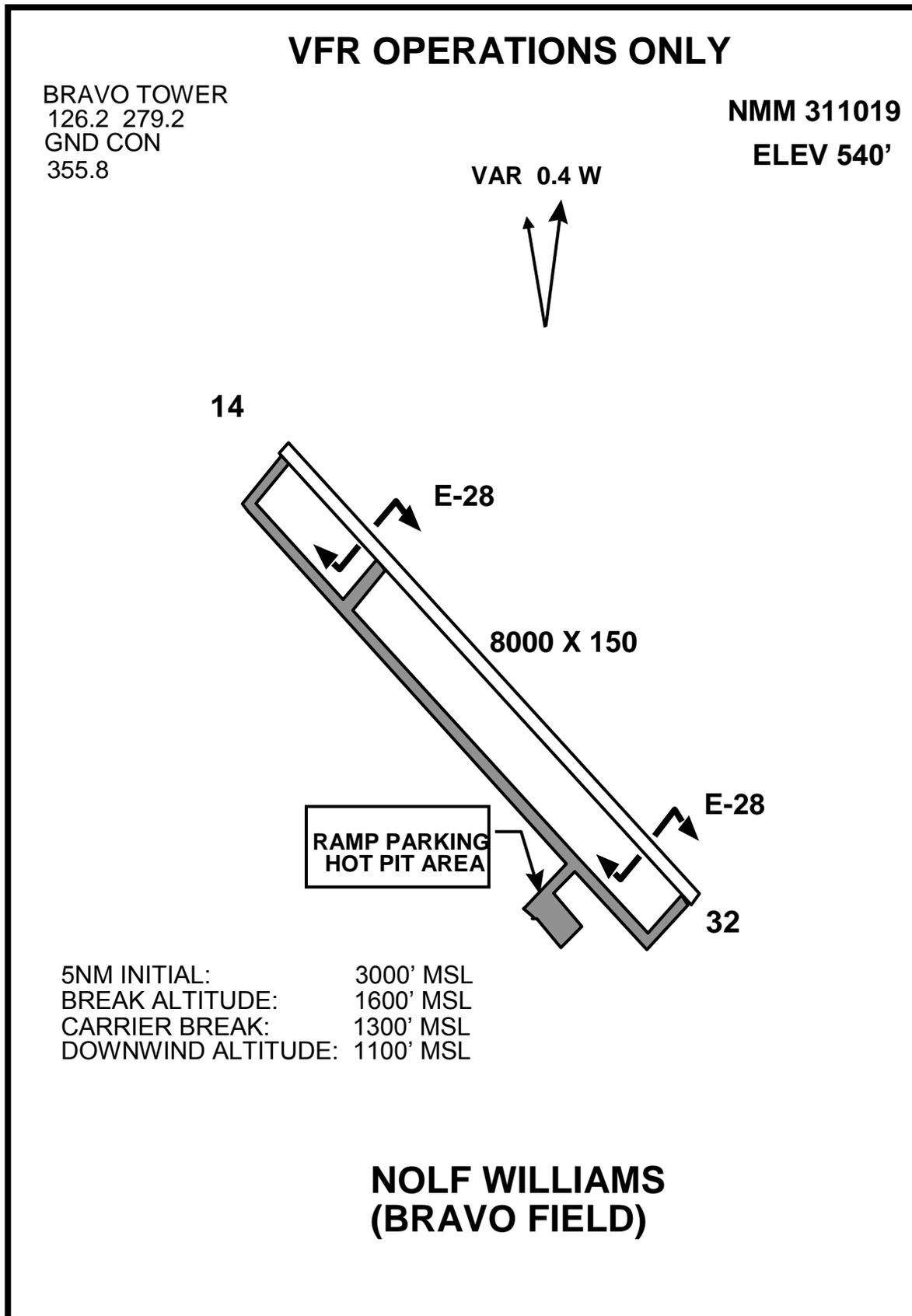
- | | |
|---------------|-------------|
| 9. N31°07'57" | W088°58'49" |
|---------------|-------------|

DESOTO 1 MOA

500' AGL - 10000MSL

R-4401 FREQS

PRIMARY
228.85
SECONDARY
228.00



NOLF WILLIAMS NORMAL PROCEDURES

ARRIVALS

1. VMC from Meridian to NJW Utilize “Navy One Alpha” call sign. Radar vectors will be provided via the “Williams Departure.” Maintain assigned altitude until reporting NJW in sight. Contact NJW Tower outside the Class D airspace for arrival instructions.
2. IMC from Meridian to NJW Utilize “Navy One Alpha” call sign. Radar vectors will be provided via the “Williams Departure.” Maintain assigned altitude and proceed via the ASR RWY 32 approach. Local Special VFR operations may be requested if weather is greater than 800/2 (daylight hours only).
3. Arrivals from local operating areas contact Memphis Center/ Meridian Approach and request a Bravo recovery to NJW. Maintain assigned altitude until reporting NJW in sight. Contact NJW Tower outside the Class D airspace for arrival instructions.

TRAFFIC PATTERN

1. VFR initial is 5NM on the extended runway centerline at 3000’ MSL. Squawk STBY inside the initial.
2. Make left traffic for all runways. Offset 200-500’ laterally to right of runway for the break at 1600’ MSL (carrier break 1300’ MSL), downwind at 1100’ MSL.
3. Delta pattern and procedures are the same as NAS Meridian, as are BASH restrictions.

DEPARTURES

1. **VFR:**

Maintain VFR; fly RWY heading climbing to 1500’ MSL until number one upwind. Then follow departure instructions as assigned and contact MEI Approach. When the approach in use at NMM is other than a visual overhead, VFR aircraft shall depart at no less than two-minute intervals.

2. **IFR:**

- a. NJW Tower shall issue the appropriate McCain Departure instructions to IFR aircraft IAW the following RWY configuration for return to NMM:

- (1) RWY 32: Leaving 1500’ MSL turn right heading 070 when RWY 19 is in use at NMM, or turn left heading 150 when RWY 01 is in use at NMM. Altitude will be assigned upon release.
- (2) RWY 14: Leaving 1500’ MSL turn left heading 070 when RWY 19 is in use at NMM, or turn right heading 150 when RWY 01 is in use at NMM. Altitude will be assigned upon release.

- b. Aircraft departing NJW to the MEI 1 West MOA shall be cleared via the following MOA Departures (MOAB and Shark Bravo):

- (1) RWY 32: Leaving 1500’ MSL commence a left 360 degree turn to intercept the NMM 318020 and proceed outbound on the NMM 318 radial to 3000’ MSL or as assigned.
- (2) RWY 14: Leaving 1500’ MSL commence a right 180 degree turn to intercept the NMM 318020 and proceed outbound on the NMM 318 radial to 3000’ MSL or as assigned.

Commander, Training Air Wing ONE

- (3) SHARK BRAVO DEPARTURE: Fly RWY heading, expect radar vectors to the NMM 348024 fix. Contact Meridian RATCF for assigned squawk and altitude.

NOTE: All departing aircraft shall fly RWY heading climbing to 1500' MSL. Once number one upwind, climb to assigned altitude and turn to intercept the appropriate departure heading. For aircraft departing to MER1 West MOA DO NOT climb above 7000' MSL until cleared by Memphis Center and having properly de-conflicted with traffic on area common frequency.

NOLF WILLIAMS FCLP PROCEDURES

ARRIVALS

1. VMC & IMC from Meridian to NOLF Williams

Standard TRAWING ONE In-Flight Guide procedures. FCLP pattern entry if WX is less than 1000/3 shall only be from on deck at NJW or by ASR RWY 32 approach.

2. Day VMC, Initial is 5NM from runway at 3000' MSL (or as assigned by ATC). Report the Initial to NJW Tower on Tower frequency. Inside the initial, descend to 1300' (carrier break) for a left break.

3. Night VMC from Meridian to NOLF Williams

a. Enroute same as day procedures.

b. Make left traffic for all runways. Offset 200-500' laterally to right of runway at 1600' MSL, 250 KIAS, 45 degree AOB. Downwind at 1100' MSL.

Note: Tower Frequency is used as Paddles Frequency at NJW.

TRAFFIC PATTERN

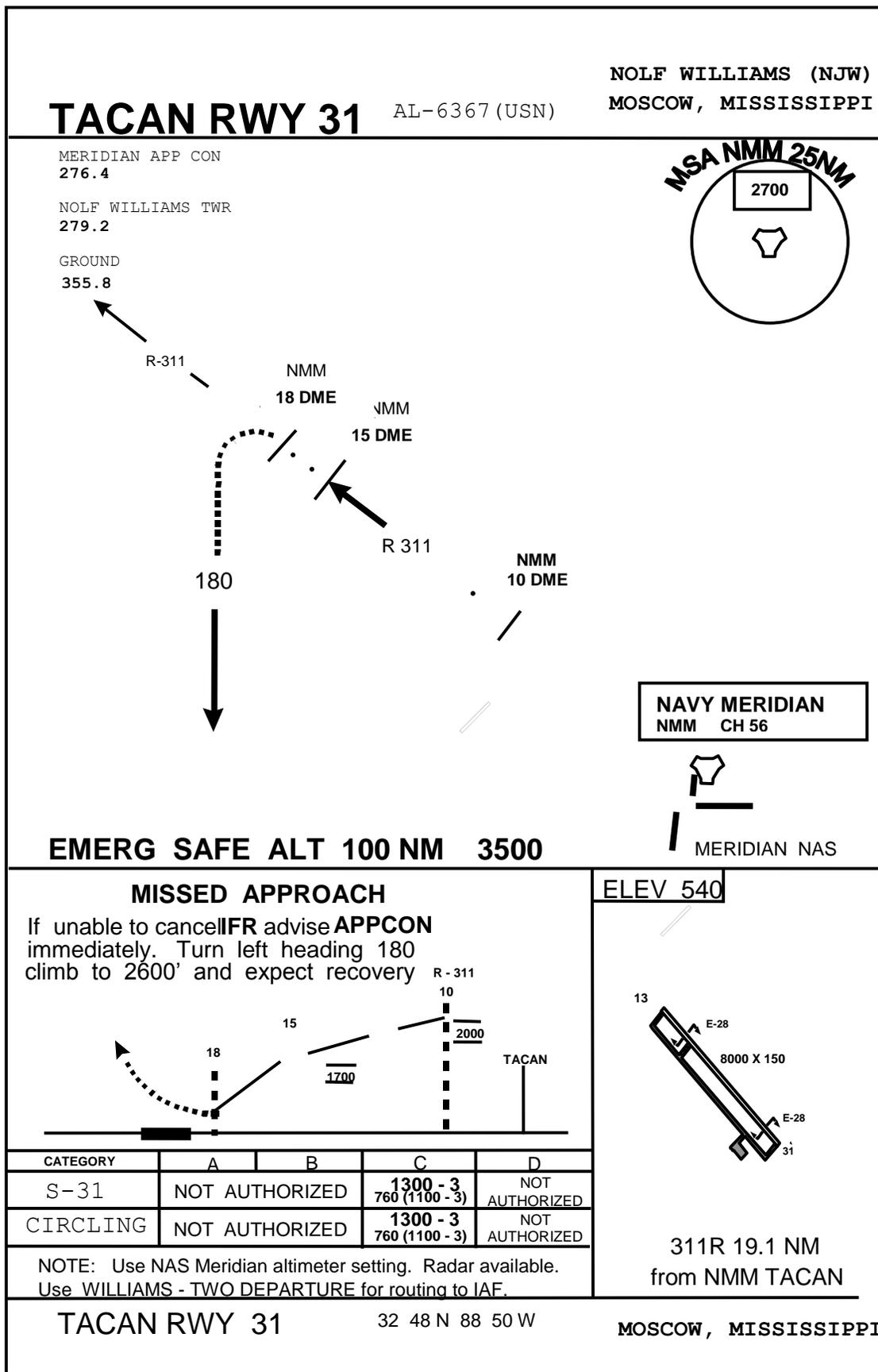
1. Make left traffic for all runways. Offset 200-500' laterally to right of runway for break at 1600' MSL (carrier break 1300' MSL), downwind at 1100' MSL.

2. The Tower will clear FCLP aircraft for takeoff and full stop landings. The LSO will assume control once the pattern is set. The Tower will monitor the FCLP frequency and retains final responsibility for safe operation during FCLP evolutions.

3. DELTA patterns are the same as at NAS Meridian, as are BASH restrictions.

DEPARTURES

Same as normal procedures previous page.



GENERAL INFORMATION

STANDARD LIGHT SIGNALS (ALDIS LAMP)

<u>LIGHT</u>	<u>AIRBORNE</u>	<u>ON DECK</u>
STEADY GREEN	Cleared to land	Cleared for take-off
FLASHING GREEN	Return for landing	Cleared to taxi
STEADY RED	Give way to other aircraft	STOP
FLASHING RED	Field unsafe, DO NOT LAND	Taxi clear of duty runway
FLASHING RED AND GREEN	EXTREME CAUTION	EXTREME CAUTION
FLASHING WHITE	N/A	Return to chocks

LSO OLS NORDO SIGNALS

<u>SIGNAL</u>	<u>MEANING</u>
Red Wave-off Lights	WAVEOFF
Green Cut Lights - 3 seconds in the groove - Subsequent flashes - Steady cut lights	ROGER BALL POWER FULL STOP THIS PASS
Alternating Flashing Wave-off/Cut Lights	BINGO TO BRIEFED FIELD

HEFOE SIGNALS

Give Weeping Signal (wristwatch on forehead), then show fingers for affected system:

<u>1 finger:</u>	Hydraulic
<u>2 fingers:</u>	Electrical
<u>3 fingers:</u>	Fuel
<u>4 fingers:</u>	Oxygen
<u>5 fingers:</u>	Engine

COMMON POST-START MALFUNCTIONS AND SOLUTIONS

Alignment time not incrementing and/or qual not decreasing

- (a) Check parking brake engaged
- (b) Select WYPT page, check WYPT 0 data to confirm proper LAT/LONG
 - 1. If correct, box LAT and press enter, then box LONG and press enter
 - 2. If incorrect, reenter correct LAT and LONG
 - 3. Check that the time is incrementing on the DATA/ACFT page, else
- (c) Select Bit Page, un-box and box GINA, else
- (d) Select DATA/ACFT page, perform RST, else
- (e) Call Troubleshooter (may have to secure electrical power for 1 minute)

GPS Satellites. As long as the time is counting up and the qual is counting down, continue with the post start checks. Expect to have satellites once you arrive in marshall.

CAUG BIT light remains on after 2 minutes

- (a) Check to see if the rudder trim needle is centered or moving
- (b) If centered, depress paddle switch and restart CAUG BIT

DEU Degrade

- (a) Select BIT page, depress DSPY in the upper right hand corner
- (b) Select STOP after displays return
- (c) If not corrected, toggle DISPLAY switch to RESET and hold for 3-5 seconds

ADR DEGD

- (a) Turn off all equipment in the jet
- (b) Secure the Generator and both Batteries (you can keep the engine turning)
- (c) Wait one (1) minute, turn on equipment
- (d) If not corrected, call for troubleshooter

Launch Bar fails to extend

- (a) Engage NWS, the cycle the nose left and right
- (b) Depress the paddle switch, reset the CAUG and extend the launch bar

Continuous OXYGEN Warning Light

- (a) Check that BIT Button is not rotated in the continuously depressed position

EMERGENCY PROCEDURES NORDO

All aircraft experiencing two-way radio communications failure while involved in NMM/NJW/MEI/MOA local ops shall:

1. Monitor appropriate frequency for location and phase of flight.
2. Squawk 7600
3. Make all calls in the blind.
4. VMC NORDO Procedures
 - a. On departure: Maintain sight of the field, fly to the initial at 3,000' MSL and follow NORDO Field Entry Procedures (see below).
 - b. In the MOA: Perform normal checkout procedures in the blind while descending to 8,000' MSL. Continue descent to 3000' MSL by the initial and follow NORDO Field Entry Procedures.
 - c. On Recovery: Continue descent to last assigned altitude. Descend to 3,000' MSL by the initial and follow NORDO Field Entry Procedures.
 - d. NORDO Field Entry Procedures: From the initial, descend to the normal break altitude and set up slightly right abeam the numbers. At the numbers, rock the wings (daytime) or flash external lights (nighttime). Break with interval/traffic in sight. **Complete the landing checklist.** Look for a green light at the abeam or for cut lights in the groove for landing clearance. If no green light/cut lights are observed on first pass, execute a wave-off. Turn downwind on interval, look for a green light at the abeam and continue. If no wave-off lights are observed and the runway is clear, land on centerline and rollout to the end. Look for green light from Tower for taxi clearance to the line.
5. IMC NORDO Procedures

NOTE: If at any time during this procedure the flight is able to maintain VMC to landing, follow VMC NORDO Procedures above.

 - a. On Departure: Climb to clearance limit altitude and continue arc or direct to fix, as assigned. Cross fix at 10,000' and proceed to PIGMY. Execute the appropriate approach from 10,000' for a full stop.
 - b. On BIN departure: Continue via the 10 DME arc clockwise and intercept and complete the appropriate approach. Maintain last assigned altitude until established on the final approach course.
 - c. In the MOA: Perform normal checkout procedures in the blind while descending to the lowest VMC altitude inside the assigned area. Proceed to PIGMY, cross the IAF at that altitude and execute the appropriate approach.
 - d. On Recovery: Fly highest of (last assigned altitude, ESA or MSA) to intercept the 10 DME arc and maintain altitude until established on the remainder of the appropriate approach.
 - e. On Buckeye Recovery: Complete the approach and execute the missed approach procedures until intercepting the 10 DME arc. Continue via the arc to intercept and complete the appropriate approach.
 - f. MAP to landing: If no lights observed, check runway clear and land. If unable to land, execute missed approach to intercept the HI-TACAN approach procedure if IMC, or turn downwind if VMC.
 - g. NMM TACAN Outage: On departure, proceed via assigned departure fix to 16,000' then direct MEI, direct DSOTO and execute the HI-TACAN approach to Key Field. In the MOA or on recovery, maintain 16,000' and proceed the same.

CONTROLLED EJECTION AREA

Location: R-4404 (NMM 348029 / MEI 010041)

Heading: 270 Degrees

Altitude: 10,000'

Airspeed: Refer to aircraft NATOPS.

LOST PLANE PROCEDURES

THE FIVE C's

CONFESS:

State your emergency. Phraseology: "PAN PAN, PAN PAN, PAN PAN, THIS IS NAVY ONE ALPHA XXX, I AM A LOST AIRCRAFT. FUEL ON BOARD: XX MINUTES. PAN PAN, PAN PAN, PAN PAN.

CLIMB:

While climbing, attempt NAVAID orientation.

CONSERVE:

Fly MAX ENDURANCE until oriented then MAX RANGE.

COMMUNICATE:

Attempt contact on center, approach, and tower frequencies. If no joy, broadcast on GUARD and set transponder selector to EMERGENCY, or set Mode 3/C to 7700.

COMPLY:

Follow ATC assigned instructions.

WHEN ORIENTED, PROCEED VFR TO NEAREST SUITABLE FIELD DEPENDING ON AVAILABLE FUEL. IF ENGINE FLAME-OUT APPEARS IMMINENT DUE TO FUEL STARVATION, **PREPARE TO EJECT!**

HUNG ORDNANCE

HUNG ORDNANCE Avoid flying over inhabited areas. Advise Approach whether ACTUAL or PRACTICE and how many aircraft have hung ordnance. When two or more aircraft have hung ordnance, the entire flight shall execute straight-in approaches to full stop landings. When only one aircraft has hung ordnance, the flight shall remain in formation and detach the aircraft for a straight-in, full stop landing.

UNSAFE GEAR/VISUAL CHECK PROCEDURES

Aircraft experiencing gear problems or otherwise requiring visual inspection should request to "hold overhead" or enter an appropriate DELTA pattern. Coordinate inspection considering configuration with other aircraft. If able, fly 200 KIAS if clean and 150 KIAS if dirty (gear and ½ flaps). Notify NMM Tower when ready to reenter the pattern for sequencing.

Plan to use the un-briefed rendezvous airspeeds of 200 KIAS (clean) and 150 KIAS (dirty) if a NORDO aircraft is involved.

SEARCH AND RESCUE (SAR) PROCEDURES

FIRST TO ARRIVE/ON SCENE COMMANDER (OSC)

1. Orbit at an altitude sufficient to initiate the SAR effort.** Initiate MAYDAY call on guard, and then contact Memphis/Atlanta Center. If unable, contact McCain Tower or Meridian Approach. As a last resort, broadcast on Guard 243.0.
2. Establish a BINGO fuel to land with sufficient reserve. Honor your BINGO.
3. Initial SAR Report
 - a. MAYDAY, MAYDAY, MAYDAY, (your call sign)
 - b. Location of crash site (NMM RADIAL/DME or INS fix)
 - c. Type aircraft involved and its call sign
 - d. Number of persons in mishap and their apparent condition.
 - e. Your fuel state endurance (in minutes). If low state, coordinate an on-station relief.
 - f. Brief description of crash site: i.e. private or public property, any obvious property damage or civilian injury.

AFTER INITIAL CONTACT, SAR UNITS WILL BE SWITCHED TO 282.8 (SAR COMMON) BY THE SAR COORDINATOR FOR RADAR SERVICE AND OVERALL COORDINATION.

4. IFF/SIF – Emergency/7700, or as assigned by SAR Coordinator.
5. Perform low altitude survey to determine aircrew's condition.** If two aircraft are on-scene, OSC should orbit high for communications relay.

** NOTE: SOLO STUDENT AVIATORS: 2500' MSL AND 250 KIAS MINIMUM

REGIONAL FIELD "QUICK REFERENCE" BINGO/NAV/COMM GUIDE

THIS DATA IS NOT A REPLACEMENT FOR THE BINGO CHARTS CONTAINED IN THE PCL

<u>FACILITY</u>	<u>IDENT</u>	<u>TAC</u>	<u>RWYS/FAC/ILS FREQ</u>	<u>APP/TWR</u>	<u>BINGO BRG/DIST</u>	<u>FUEL/ALT</u>
Joe Williams	NJW	56	31/311/56 TCN	276.4 (11)/279.2 (9)	311/19	433/5K
Key Field	MEI	117	01/008/110.1 19/188/111.35 ch. 50/Y	269.6 (19)/257.8 (18)	216/17	433/5K
Columbus AFB	CBM	99	13C/135/109.3 31C/315/108.7	291.65/379.925	005/66	615/15K
Tuscaloosa	TCL	125	04/041/109.1	257.2/256.7	051/67	615/15K
Jackson Int'l	JAN	73	34L/338/109.3 16L/158/110.5	317.7/352.0	250/79	672/20K
Maxwell AFB	MXF	97	15/150/109.3	380.225/253.5	095/110	790/25K
Montgomery	MGM	58	10/097/109.9 28/277/108.5	380.225/360.85	097/111	790/25K
Keesler AFB	BIX	55	21/214/109.7	254.25/269.075	189/130	858/25K
Pensacola NAS	NPA	119	07L/069/109.3	270.8/340.2	150/155	939/30K
New Orleans NAS	NBG	88	04/044/109.5	256.9/340.2	202/180	1015/35K

IMPORTANT PHONE NUMBERS

NAS MERIDIAN (601) 679- XXXX

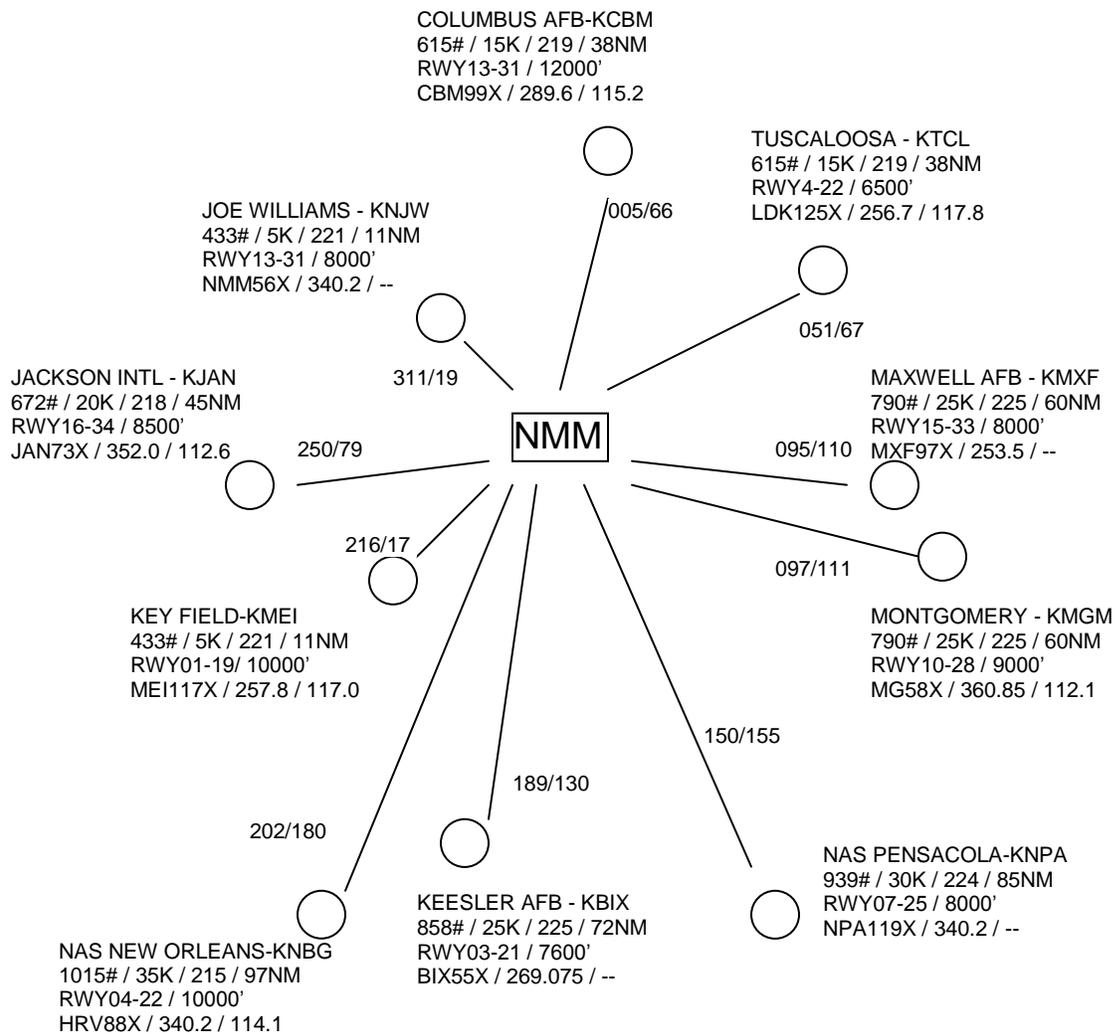
VT-7 ODO	2321	BASE ODO	2345
VT-9 ODO	2330	BASE OPS	2505
MAINT CONTROL	2159	BASE OPS FAX	3603
WEATHER	2726	WING OPS	2875/2706
WX FAX	637-2372		

<u>AIRPORT</u>	<u>FBO</u>	<u>PHONE</u>
MEI Key Field	Meridian Aviation	(601) 693-7282
JAN Jackson Intl.	Mercury Air Ctr	(601) 939-9366
TCL Tuscaloosa Rgl.	Bama Air	(205) 349-3991
MGM Montgomery Rgl.	Montgomery Aviation	(334) 288-7354
FSM Fort Smith Rgl.	Tac Air	(800) 925-9689
BHM Birmingham Intl.	Mercury Air Ctr	(205) 591-6830
CHA Lovell Field	Truman Arnold Co.	(423) 490-4601
NPA Pensacola NAS	Base Ops	(850) 452-2431

DIVERT CHART

THIS DATA IS NOT A REPLACEMENT FOR THE BINGO CHARTS FOUND IN THE PCL

AIRFIELD
 BINGO FUEL / ALT / CRUISE KIAS / DESCENT DISTANCE
 RWY / LENGTH
 TACAN / TOWER / VOR



NOTE: T-45 BINGO 50 Drag Index, no wind, MRT climb @ 300 KIAS, 180KIAS idle descent, 300# reserve.

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T-45C Mission Essential System Matrix

	I N S T	F A M	F O R M	N F A M	N F O R M	O N A V	W E P S	T A C F	A C M	F C L P	C Q	LOG
ADR	R	R	R	R	R	R	R	R	R	R	R	R
Anti-collision lights (one req'd)	R	R	R	R	R	R	R	R	R	R	R	R
AOA exterior approach lights										R	R	
AOA indexer	R	R		R						R	R	
AOA indicator (Note 1)	R	R	R	R	R	R	R	R	R	R	R	
Arm Override (Aft)							R					
Arresting hook	R	R	R	R	R	R	R	R	R	R	R	R
Brakes/Anti-skid	R	R	R	R	R	R	R	R	R	R	R	R
Cabin altimeter (One Required)	R	R	R	R	R	R	R	R	R	R	R	R
Caution/warning/ advisory Lights	R	R	R	R	R	R	R	R	R	R	R	R
Clock	R			R		R				R	R	
Comm/ICS control	R	R	R	R	R	R	R	R	R	R	R	R
Control Augmentation	R	R	R	R	R	R	R	R	R	R	R	
Flight instruments (Note 2)	R	R	R	R	R	R	R	R	R	R	R	R
Form lights					R							
Fuel Qty Ind (Both)	R	R	R	R	R	R	R	R	R	R	R	R
HUD (Note 1)	R	R	R	R	R	R	R	R	R	R	R	
IFF	R	R	R	R	R	R	R	R	R	R	R	R
Interior lights (Night)	R			R	R					R	R	
Launch Bar											R	
LAW/RADALT (Note 1)	R	R	R	R	R	R	R	R	R	R	R	R
NWS / NWS AUG	R	R	R	R	R	R	R	R	R	R	R	R
Pitot/AOA heat	R	R	R	R	R	R	R	R	R	R	R	R
Position lights (night)				R	R					R	R	
Steam ingestion sys											R	
Strobe light	R	R	R	R	R	R	R	R	R	R	R	
TACAN (Notes 1,3)	R	R	R	R	R	R	R	R	R	R	R	R(4)
Taxi light	R	R	R	R	R	R	R	R	R	R	R	R
UHF/VHF #1	R	R	R	R	R	R	R	R	R	R	R	R
UHF/VHF #2 (Note 3)	R	R	R	R	R	R	R	R	R	R	R	
VOR/ILS (Notes 1,3)	R										R	R(4)

R = Required for flight; aircraft is down if inoperable

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Notes:

1. Optional equipment at IP's discretion on lead events.
2. Flight Instruments include: DEP, both MFDs, standby barometric altimeter, standby airspeed indicator, standby VSI, front cockpit magnetic compass, standby attitude gyro, and turn/slip indicator.
3. Optional equipment based on MCG requirements, weather, and available airfield facilities.
4. Must have one operable, either TACAN or VOR.