

USAF Air Education and Training Command

309th VFS & Gyr Falcon VFW



Training LFE-1
Operations Briefing

Exercise Director

Cypher

Briefer

Cypher

OVERALL BRIEFING CLASSIFICATION:

UNCLASSIFIED



Coalition Air Order of Battle

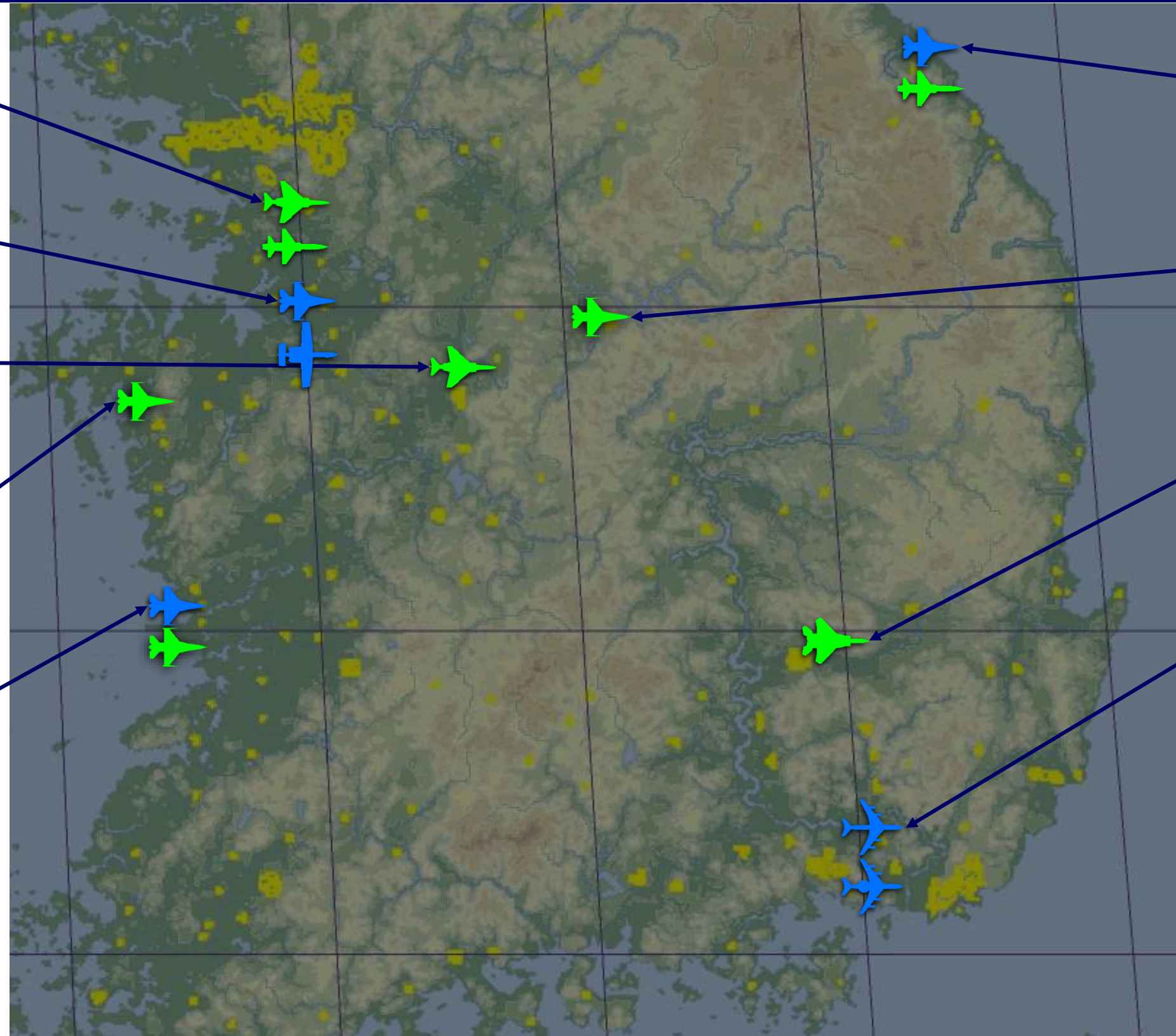
Suwon AB
 20x F-5E (101st FS)
 20x F-5E (201st FS)
 20x F-4E (153rd FS)

Osan AFB
 24x F-16CM-40 (36th FS)
 24x A-10C (25th FS)

Cheongju AB
 20x F-4E (151st FS)
 20x F-4E (152nd FS)

Seosan AB
 20x KF-16C (120th FS)
 20x KF-16C (121st FS)
 20x KF-16C (123rd FS)
 20x KF-16C (157th FS)

Gunsan AFB
 18x F-16CM-50 (13th FS Det.1)
 24x F-16CM-40 (35th FS)
 24x F-16CM-40 (80th FS)
 20x KF-16C (111st FS)



Gangneung AB
 18x F-16CM-50 (14th FS Det.1)
 20x F-5E (105th FS)
 20x F-5E (112nd FS)

Jungwon
 20x KF-16C (155th FS)
 20x F-16C (161st FS)
 20x KF-16C (162nd FS)
 10x RF-16C (159th RS)

Daegu AB
 20x F-15K (102nd FS)
 20x F-15K (110th FS)
 20x F-15K (122nd FS)

Gimhae AB
 8x KC-135R (909th ARS Det.1)
 2x RC-135 (82nd RS Det.1)
 4x E-3 (961st AACs)
 2x E-8C (5th EACS)



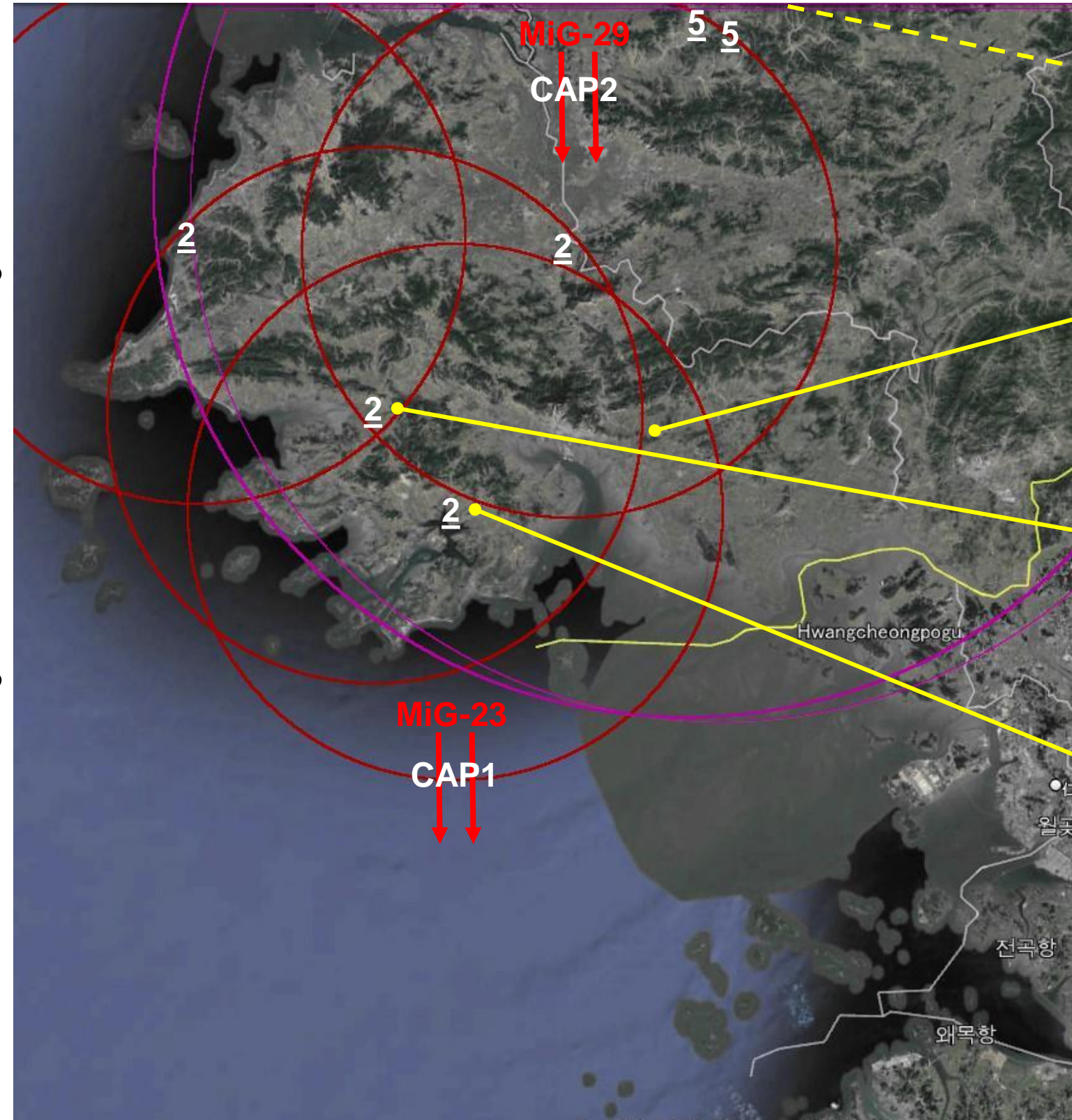
INTEL BRIEF

MLCOA

- 2x MiG-23 CAP at BE Vul Start
- 2x MiG-21 T/O aft Vul+5 from Haeju AB
- 2x MiG-29 CAP aft Vul+15 from Hwangju AB

MDCOA

- 2x MiG-23 CAP at BE Vul Start
- 2x MiG-21 T/O aft Vul+5 from Haeju AB
- 2x MiG-21 T/O aft Vul+5 from Taetan AB
- 4x MiG-29 CAP aft Vul+15 from Hwangju AB



Hwangju AB

- MiG-29

Haeju AB

- MiG-21MF

Taetan AB

- MiG-21MF

Onjin AB

- MiG-23ML



JDPIs





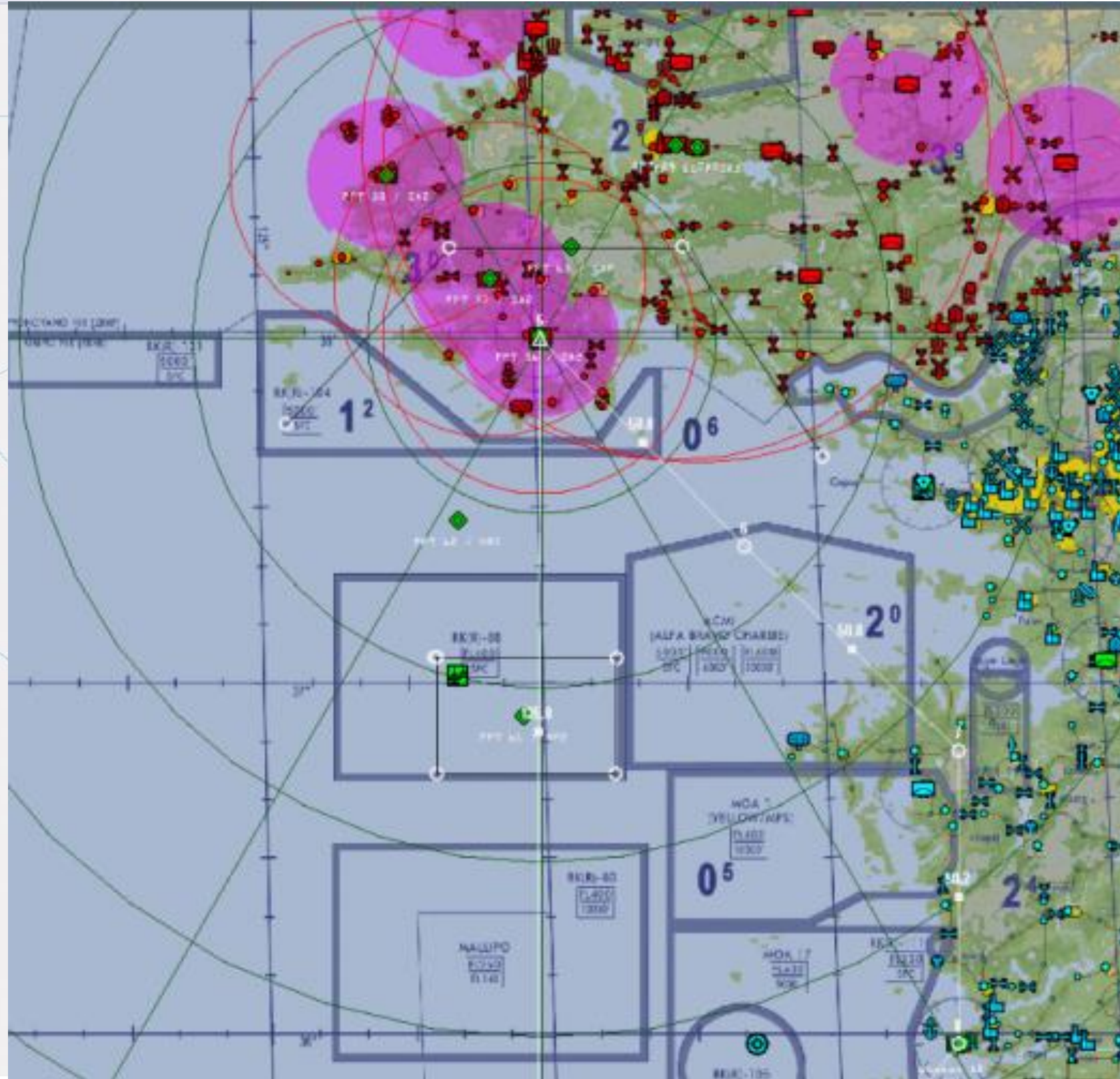
JDPIs List

AIRCRAFT	STPT	TARGET	WEAPON
MUSTANG 31	81	Runwat Long Section	GBU-31
MUSTANG 31	82	Control Tower	GBU-31
MUSTANG 32	83	Runway THR XX #2	GBU-31
MUSTANG 32	84	Runway Section #2	GBU-31
MUSTANG 33	85	Maintenance Hangar #1	GBU-31
MUSTANG 33	86	SA-2 #4	GBU-31
MUSTANG 34	87	Runway THR #1	GBU-31
MUSTANG 34	88	Runway Section #1	GBU-31
HUNTER 41	89	Hangar #3	GBU-38
HUNTER 41	90	Hangar #4	GBU-38
HUNTER 42	91	Fuel Tank #2	GBU-38
HUNTER 42	92	Ammo Dump #4	GBU-38
HUNTER 43	93	Ammo Dump #2	GBU-38
HUNTER 43	94	Maintenance Hangar #2	GBU-38
HUNTER 44	95	HAS NATO DD Closed #3	GBU-38
HUNTER 44	96	HAS NATO DD Open #2	GBU-38

AIRCRAFT	STPT	TARGET	WEAPON
COWBOY 51			
COWBOY 51			
COWBOY 52			
COWBOY 52			
COWBOY 53			
COWBOY 53			
COWBOY 54			
COWBOY 54			



SCHEDULE



EVENT	Zulu Time	Vul+/-
TAKE OFF	2203	
ROLL CALL	2212	-5
██████████		
LOW DOWN	2233	-4
INITIAL PICTURE	2236	-1
ESCORT PUSH	2237	0
SEAD PUSH	2240	+3
STRIKER PUSH	2245	+8
WINDOW	2300-2312	
End Vul	2317	+40




OCA PACKAGE


BLUE FORCE


CALLSIGN	MSN	#1	#2	#3	#4
PANTHER 11	ESC				
WEASEL 21	SEAD	<u>DEVILS C</u>	Cookie	Heeting	
MUSTANG 31	STK				
HUNTER 41	STK	<u>Nathen</u>	Charlie		Tube
HAWKEYE	C2	<u>Sisko</u>			
OPPOSITE FORCE					



OCA PACKAGE


CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG			
PANTHER 11	F-16CM-50 	ESC	4	RKJK		2083			
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET		
22:13	22:17	22:29	30K	22:37	30K	22:52			
NET	230.175 - CH6	INTRA	141.075 - CH15	TCN	11X-74Y-74X-11Y	IDM	11-12-13-14	ORD	6AX2


CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG			
WEASEL 21	F-16CM-50 	SEAD	4	RKJK		2083			
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET		
22:14	22:18	22:30	20K	22:40	25K	22:55	SA-2		
NET	230.175 - CH6	INTRA	140.475 - CH16	TCN	21X-84Y-84X-21Y	IDM	21-22-23-24	ORD	4AX2A88X2


CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG			
MUSTANG 31	F-16CM-40 	STK	4	RKJK		2083			
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET		
22:15	22:19	22:31	18K	22:45	24K	23:00	Onjin AB RWY		
NET	230.175 - CH6	INTRA	139.875 - CH17	TCN	31X-94Y-94X-31Y	IDM	31-32-33-34	ORD	4AX2G31X2



OCA PACKAGE

CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG			
HUNTER 41	F-16CM-40 	STK	4	RKJK		2083			
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET		
22:16	22:20	22:32	16K	22:47	22K	23:02	Onjin AB Facilities		
NET	230.175 - CH6	INTRA	50.825 - CH18	TCN	41X-104Y-104X-41Y	IDM	41-42-43-44	ORD	4AX2G38X2

CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG			
COPPER 31	KC-135R 	TNK	1	RKPK		2150			
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET		
NET	289.650 - CH13	INTRA	TCN	29Y	IDM			POS	BE 182/184

CALLSIGN	AIRCRAFT	MSN	QTY	ICAO	AAR	PKG		
HAWKEYE 61	E-3C 	ACC	1	RKPK		2153		
TAXI	T/O	HOLD	ALT	PUSH	ALT	TOT	TARGET	
NET	251.350 - Ch6	INTRA	TCN	IDM				POS



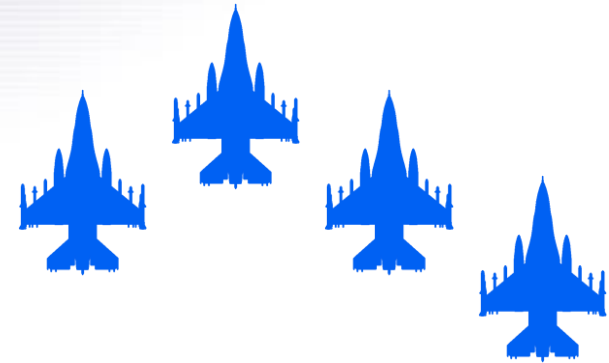
BLOCKS

ALT	HOLDING	PUSH
40-44	PANTHER	PANTHER
35-39		
30-34		
25-29	<i>ELEVATOR</i> (Need clearance)	WEASEL
20-24	WEASEL	MUSTANG/HUNTER
15-19	MUSTANG/HUNTER	<i>ELEVATOR</i> (Need clearance)
0-14	MAY NOT USED (MANPADS, AAA, etc.)	



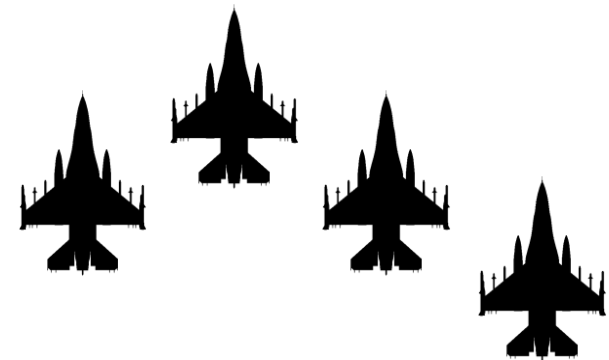
INGRESS

PUSH FLOW: 360
PUSH POINT: STPT 4



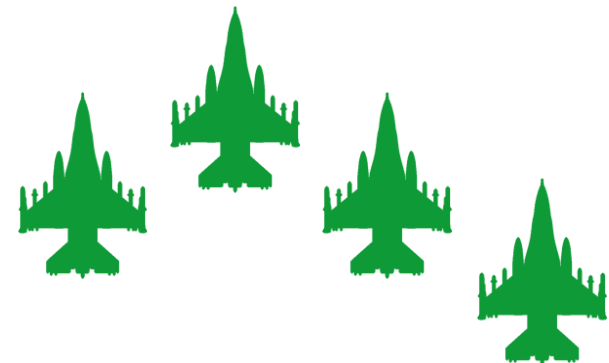
PANTHER 1 - ESCORT

PUSH TIME 22:37 (VuI +0)



WEASEL 2 - SEAD

PUSH TIME 22:40 (VuI +3)



MUSTANG 3 - STRIKE
HUNTER 4 - STRIKE

PUSH TIME 22:45 (VuI +8)
PUSH TIME 22:47 (VuI +10)

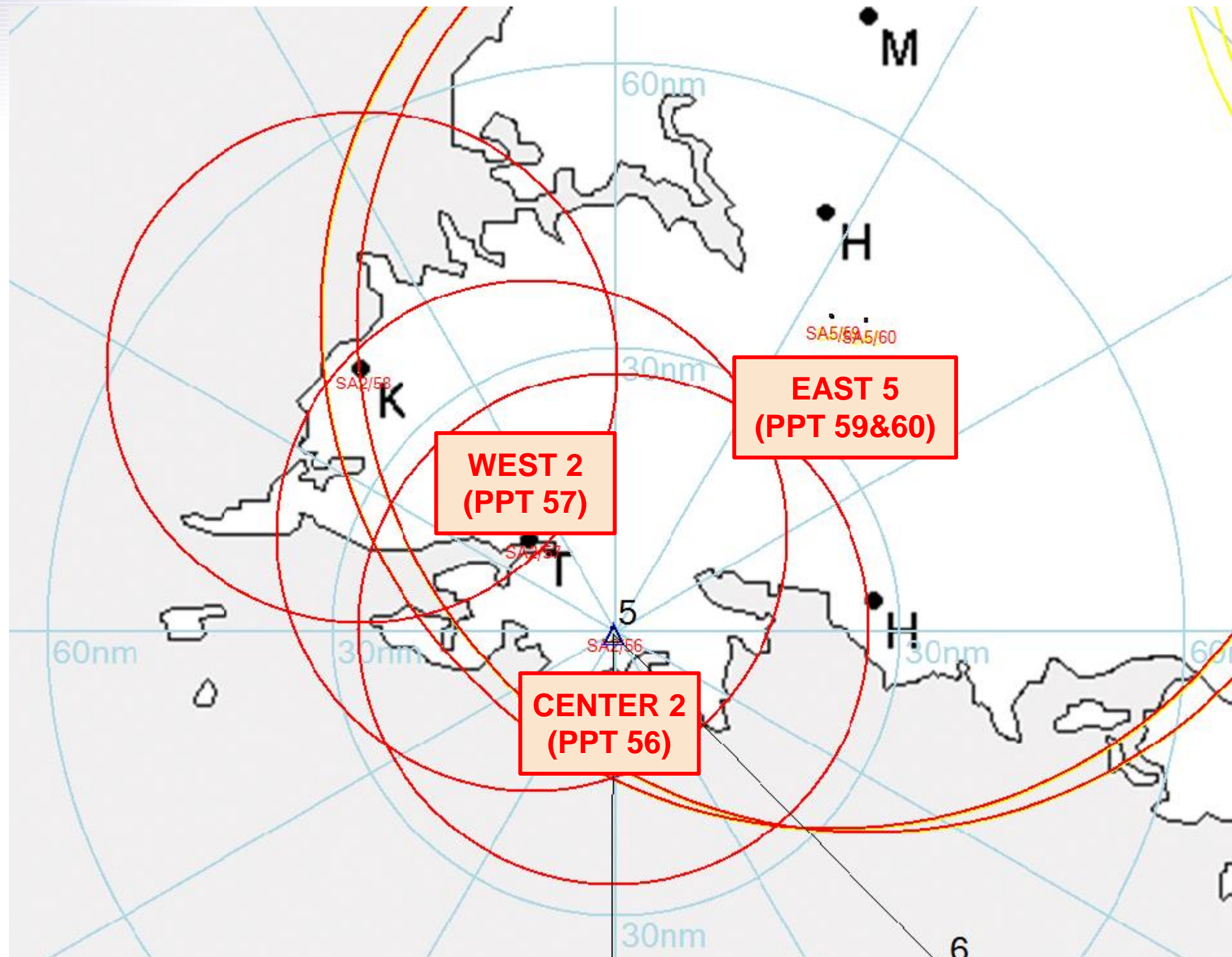


CONTRACT

CONTRACT	AUTHORITY	CRITERIA	ACTION
SPIN	MSNCC	ESCORT NEEDS TIME	TOT + 3min/once
LEAN W/E	MSNCC	THREAT TO STK/AVOID THRT	LEAN WEST/EAST
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
WPN GRN/YLW/RED	ESC/STK	MRM per FL >12/<12/<6	
FUEL YLW/RED/JKR/BNG	ESC/STK	7.7K/6.7K/5.7K/3.7K	
TOT YLW/RED	MSNCC	REMAIN 1SPIN/NO SPIN	ESC LAST LL/ESC GO LD
HAKAIDER(W/E)	STK	BRUISER AWAY W/E TGT	
MILLER TIME	MSNCC	PKG ALL BRUISER AWAY	START EGRESS / C'K THREAT



SEAD BRIEF



- **Package Support**
 - Weasel 2
 - 4 x F-16CM

- **Pre-TOT Reactive**
 - Weasel 21: WEST 2
 - Weasel 22: CENTER 2
 - After 1st Magnum, XMIT3

- **Escort SEAD**
 - Weasel 23/24
 - Reactive Shot when DIRT

- **SEAD Contract**
 - SA-2: DIRT
 - SA-5: MUD



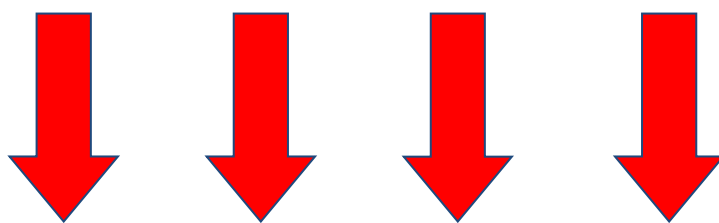
STD TARGETING PLAN

SINGLE Gp



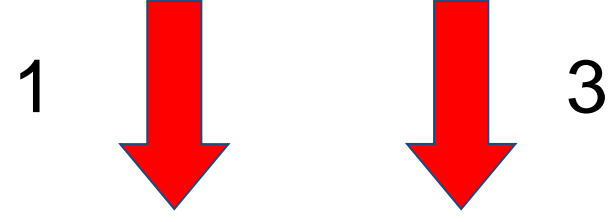
4/2

4 Gps WALL



2 1 3 4

3 Gps VIC

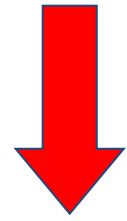


1 3



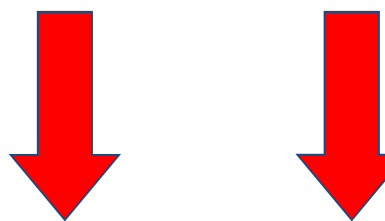
4/2

3 Gps VIC

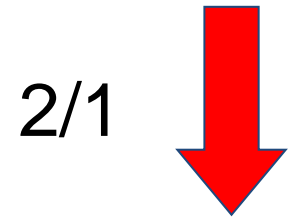


C2

2/1 4/3



2 Gps RNG

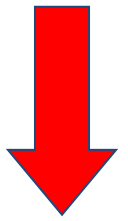


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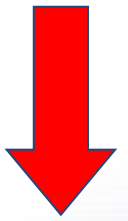


4/3

2 Gps AZ



2/1



4/3



MiG-23MLA Flogger G

• PLATFORM

- Wing Span : 25.5-45.8 ft (7.8-14m)
- Max Speed : M? (Sea Level) M1.7 (ALT)
- Max G : +6 / -? (above M0.85)
- Ceiling : 46,000 ft
- Combat Radius : 420 nm (Internal Fuel)

• RADAR

- Name : RP-23ML Sapfir 23 (HIGH LARK II)
- Type, Characteristics : Pulse Doppler, Twisted Cassegrain, I-Band, M/HPRF
- Gimbal Limit : +/- 60° (AZ), +60°/-38° (EL)
- Max : 10 Targets (Engage 1 in STT)
- Range : 27 nm (Search)

• AVIONICS

- RWR : SPO-15 (21 nm)
- CHAFF/FLARE : 60 rounds
- JAMMER : SPS-141 IR Jammer Pod

• WEAPONS

- Hardpoints : 6
- Guns : GSh-301 30mm Gun (150 rounds, 1600 RPM)
- Fox 1 (Max 2x) : AA-2B (R-3R), AA-7A (R-23R)
- Fox 2 (Max 4x) : AA-2C (R-13M)
- Fox 2 (Max 2x) : AA-7B (R-23T)
- Fox 2 (Max 6x) : AA-8 (R-60)

	Low ALT	Medium ALT
Inst. turn rate	23°	16°
Sust. turn rate	16°	9°

MAR = 12 NM



COUNTER TACTICS

JAM AI RADAR
PRE-EMPTIVE CHAFF

IF "NAILS"

CHAFF + 2D/3D MANEUVER

IF "SPIKE"

CHAFF + NOTCH



MiG-29A Fulcrum A

• PLATFORM

- Wing Span : 37 ft (11m)
- Max Speed : M1.23 (Sea Level) M2.3 (ALT)
- Max G : +7.5 / -2.2 (above M0.85)
- Ceiling : 56,000 ft
- Combat Radius : 240 nm (Internal Fuel)

• RADAR

- Name : N019 Sapfir 29 (SLOT BACK I)
- Type, Characteristics : Pulse Doppler, Twisted Cassegrain, I-Band, M/HPRF
- Gimbal Limit : +/- 67° (AZ), +60°/-38° (EL)
- Max : 10 Targets (Engage 1 in STT)
- Range : 40 nm (Search), 30 nm (Track), 12-14 nm (vs F-16 w/ALQ-131/184)

• AVIONICS

- HMS : +/- 60° (AZ/EL)
- IRST/LRF : 8 nm
- RWR : SPO-15 (21 nm)
- CHAFF/FLARE : 60 rounds
- JAMMER : L-203 Gardenya SPJ

• WEAPONS

- Hardpoints : 7
- Guns : GSh-301 30mm Gun (150 rounds, 1600 RPM)
- Fox 1 (Max 2x) : AA-10A (R-27R)
- Fox 2 (Max 6x) : AA-10B (R-27T), AA-8B (R-60M), AA-11 (R-73)

	Low ALT	Medium ALT
Inst. turn rate	23°	16°
Sust. turn rate	16°	9°

MAR = 17 NM



COUNTER TACTICS

JAM AI RADAR
PRE-EMPTIVE CHAFF

IF "NAILS"

CHAFF + 2D/3D MANEUVER

IF "SPIKE"

CHAFF + NOTCH



MiG-29S Fulcrum C

• PLATFORM

- Wing Span : 37 ft (11m)
- Max Speed : M1.23 (Sea Level) M2.3 (ALT)
- Max G : +7.5 / -2.2 (above M0.85)
- Ceiling : 56,000 ft
- Combat Radius : 240 nm (Internal Fuel)

• RADAR

- Name : N019M Topaz (SLOT BACK I)
- Type, Characteristics : Pulse Doppler, Twisted Cassegrain, I-Band, M/HPRF
- Gimbal Limit : +/- 67° (AZ), +60°/-38° (EL)
- Max : 10 Targets (Engage 1 in STT)
- Range : 40 nm (Search), 30 nm (Track), 12-14 nm (vs F-16 w/ALQ-131/184)

• AVIONICS

- HMS : +/- 60° (AZ/EL)
- IRST/LRF : 8 nm
- RWR : SPO-15 (21 nm)
- CHAFF/FLARE : 60 rounds
- JAMMER : L-203 Gardenya SPJ

• WEAPONS

- Hardpoints : 7
- Guns : GSh-301 30mm Gun (150 rounds, 1600 RPM)
- Fox 1 (Max 2x) : AA-10A (R-27R)
- Fox 2 (Max 6x) : AA-10B (R-27T), AA-8B (R-60M), AA-11 (R-73)
- Fox 3 (Max 6x) : AA-12 (R-77)

	Low ALT	Medium ALT
Inst. turn rate	23°	16°
Sust. turn rate	16°	9°

MAR = 21 NM



COUNTER TACTICS

JAM AI RADAR
PRE-EMPTIVE CHAFF

IF "NAILS"

CHAFF + 2D/3D MANEUVER

IF "SPIKE"

CHAFF + NOTCH



LONG BURN

AA-10C ALAMO (R-27ER)

• SEEKER

- Guidance : Semi-active Radar Homing
- Gimbal Limit : +/- 55° (AZ/EL)
- LOS Rate : 25° /sec

• RANGE

- Forward : No Data
- Aft : No Data

• MISSILE

- Max G : 45
- Max Speed : M4.0
- Warhead : 73 lbs expanding rod

• REMARKS

- Command updates at initial phase
- Basic FCR needs to be in STT

• TIMELINE

- TR : 32 nm
- DOR : 25 nm
- MAR : 21 nm
- DR : 19 nm
- STERN WEZ : 15 nm



COUNTER TACTICS
 JAM AI RADAR & MSL SEEKER
 CHAFF + 2D/3D MANEUVER
TERMINAL PHASE
 LAST DITCH MANEUVER



AA-12 ADDER (R-77)

• SEEKER

- Guidance : Active Radar Homing, Home On Jamming
- Gimbal Limit : +/- 60° (AZ/EL)
- LOS Rate : 40° /sec

• RANGE

- Forward : 32 nm
- Aft : 15 nm

• MISSILE

- Max G : 35
- Max Speed : M4.2
- Warhead : 50 lbs expanding rod

• TIMELINE

- TR : 32 nm
 - MSR : 28 nm
 - MTR : 25 nm
 - **DOR** : **25 nm**
 - **MAR** : **21 nm**
 - MRR : 22 nm
 - DR : 19 nm
 - STERN WEZ : 15 nm
- at 35,000 ft (+/- 4 nm / 10,000 ft)



COUNTER TACTICS
CHAFF + 2D/3D MANEUVER
TERMINAL PHASE
LAST DITCH MANEUVER



HIMAD

FIXED

SA-2 Guideline (S-75 Dvina)

PLATFORM

- Guidance : Command
- Range : 4 - 18 nm
- Altitude : 300 - 90,000 ft
- Typical Engagement : 15 nm / 230,000 ft
- Max G : 8
- Max Speed : M2.4
- Chaff Vulnerability : Medium
- Warhead : 440 lbs
- Holding Missiles : 1 x6 Launchers



2



FCR

- NATO Name : Fan Song F
- Range : - 82 nm
- Band : G
- Chaff Vulnerability : Medium
- BT Range : 12 nm

TAR/EWR

- NATO Name : Spoon Rest
- Range : - 145 nm
- Band : A
- Chaff Vulnerability : High
- BT Range : 65 nm



F

COUNTER TACTICS

TERRAIN MASKING & 2D MANEUVER
JAM FCR & MSL DATALINK

IF "SINGER"

CHAFF + 4 G BREAK TURN
BEAM / SPLIT-S / TURN AWAY



HIMAD

FIXED

SA-5 Gammon (S-200)

PLATFORM

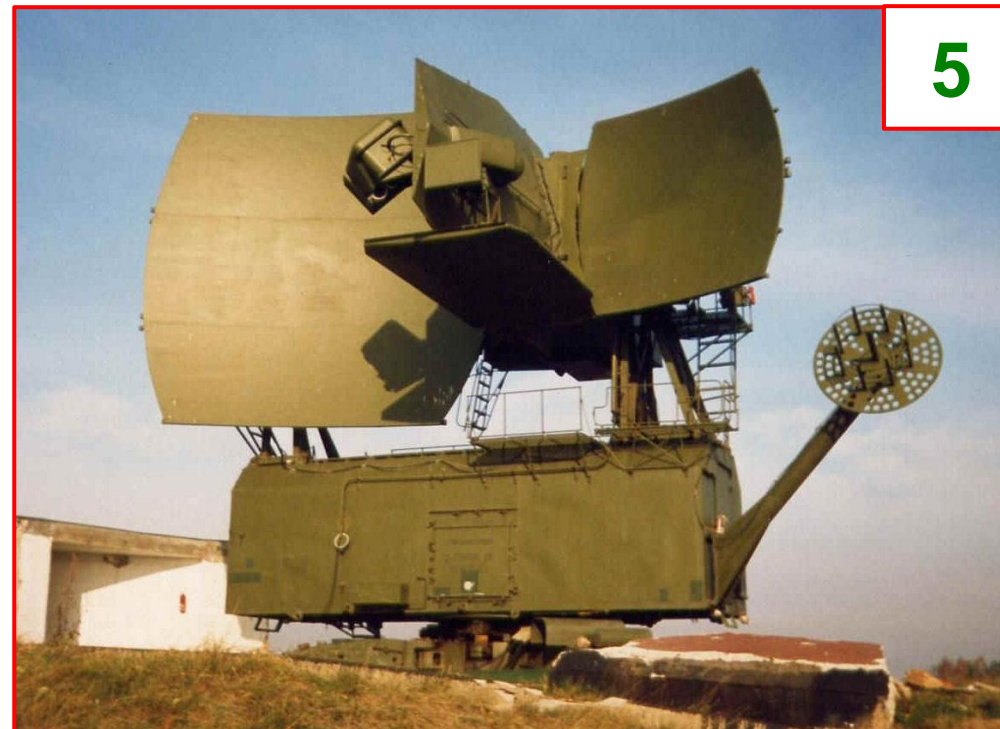
- Guidance : Command, SARH
- Range : 7 - 190 nm
- Altitude : 1,000 - 327,000ft
- Typical Engagement : **53 nm / 327,000 ft**
- Max G : 8
- Max Speed : M8.0
- Chaff Vulnerability : Medium
- Warhead : 250 lbs
- Holding Missiles : 1 x6 Launchers

FCR

- NATO Name : **Square Pair** →
- Range : - 145 nm
- Band : H
- Chaff Vulnerability : Medium
- BT Range : 26 nm

EWR

- NATO Name : **Bar Lock B** →
- Range : - 250 nm
- Band : E / F
- Chaff Vulnerability : Medium
- BT Range : 45 nm



COUNTER TACTICS

TERRAIN MASKING & 2D MANEUVER
 JAM FCR & MSL DATALINK

IF "SINGER"

CHAFF + 5-6 G BREAK TURN
 BEAM



AAA

KS-19/12, S-60, ZU-23, ZPU-2

PLATFORM

- Gun Caliber : 100 mm (KS-19)
85 mm (KS-12)
57 mm (S-60)
23 mm (ZU-23)
14.5 mm (ZPU-2)
- Range : 0 - 5 nm
- Altitude : 0 - 33,500 ft
- Typical Engagement : 2 nm / 16,000 ft

TAR/TTR

- NATO Name : Fire Can
- Range : - 25 nm
- Band : E
- BT Range : 13 nm



COUNTER TACTICS
 FLY HIGH ALTITUDE (LOW CAL. ONLY)
 MAINTAIN HIGH SPEED 450+ kts
 2D/3D MANEUVER



QUESTIONS?

