UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15
1st Marine Aircraft Wing
FPO San Francisco, CA. 96602

2:JRS:drl
5750
03 January 1978

From: Commanding Officer
To: Commanding Officer, Marine Aircraft Group 15
(Attn: S-3)

Subj: Command Chronology for the period 1 July 1977 through 31 December 1977

Ref: (a) MCO P5750.1D
(b) FMFPacO 5750.8C
(c) WgO 5750.1D
(d) GruO 5750.1H

Encl: (1) VMFA-251 Command Chronology

1. In accordance with the provisions set forth in references (a) through (d), enclosure (1) is submitted.

C. J. COWELL
By direction

VMFA-251

Jul-Dec 77

UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15
1st Marine Aircraft Wing
FPO San Francisco, CA. 96602

COMMAND CHRONOLOGY

1 JULY TO 31 DECEMBER 1978

INDEX

ENCLOSURE (1)

PART I

ORGANIZATIONAL DATA

1. DESIGNATION	COMMANDER
MARINE FIGHTER ATTACK SQUADRON 251	LTCOL. M. W. ALLINDER JR. 1 July - 31 December 1977
2. GEOGRAPHICAL LOCATION	**PERIOD**
MCAS BEAUFORT, SOUTH CAROLINA	1 July - 7 July 1977
MCAS YUMA, ARIZONA MCAS KANEHOE, HAWAII WAKE ISLAND AFB	8 July - 26 July 1977 TransPac movement to Japan
MCAS IWAKUNI, JAPAN	26 July - 31 December 1977
3. STAFF OFFICERS	
EXECUTIVE OFFICER	Major C. J. COWELL 1 July - 31 December 1977
ADMINISTRATIVE OFFICER	Captain W. L. SMITH 1 July - 31 October 1977 Captain E. J. PERROTT 1 November - 31 December 1977
INTELLIGENCE OFFICER	Captain E. J. PERROTT 1 July - 31 October 1977 Captain J. R. SNOWDEN 1 November - 31 December 1977
OPERATIONS OFFICER	Major J. R. CADICK 1 July - 31 December 1977
LOGISTICS OFFICER	Captain R. A. KLEHM 1 July - 31 December 1977
MAINTENANCE OFFICER	Major O. E. HAY 1 July - 31 December 1977
FIRST SERGEANT	First Sergeant J. M. BARATKA 1 July - 31 December 1977

4. AVERAGE MONTHLY STRENGTH

OFFICERS	ENLISTED
31	227

PART II

NARRATIVE SUMMARY

1. The first week in July 1977 was the culmination of months of preparation for the Squadron's one year deployment to Japan. During the next three weeks, the Thunderbolts successfully flight ferried 12 F4J aircraft from Beaufort, South Carolina to Iwakuni, Japan via Yuma, Arizona, Hawaii and Wake Island.

2. Upon arrival in Japan, the squadron began to familiarize itself with it's new home. The usual array of lectures and written exams were completed and flight operations were begun almost immediately.

The fast pace of WestPac operations was first felt during the period 23 - 26 August 1977. During this four day period, the squadron was involved in two operations simultaneously: Readiness Check Alligator and Exercise Cope Strike Mike/Cope Jade Charlie. The specifics of the Squadron's participation in these exercises are outlined in Part III to this enclosure.

3. The remainder of August saw the Thunderbolts flying dissimilar ACM against the H&MS-12 TA-4's and flying fighter intercepts.

4. The next two months were an extremely busy and productive time for VMFA-251. Five squadron aircraft participated in the comprehensive training of Cope Thunder XI held 10 - 24 September at Clark AFB, Philippines. During this same period, two aircrew successfully completed the Air Combat Tactics (Instructor) Course offered by MAWTUPAC.

5. The last week in September brought the squadron together again at NAS Cubi Point, Philippines to begin a one month deployment and participation in Exercise Fortress Lightning.

6. On the fourth of October, a 1stMAW Team arrived unannounced to conduct a Training/Readiness Evaluation (TRE) of VMFA-251. See Part III to the enclosure and TAB 9

7. Exercise Fortress Lightning began on 13 October and was completed on 21 October 1977. The Thunderbolt's mission during this exercise was to establish and maintain air superiority for the "Blue Forces". A combination of Combat Air Patrol, Fighter Intercepts and scrambling aircraft from strip alert were used to accomplish the mission. On 23 October, the squadron returned to MCAS Iwakuni.

8. The first two weeks in November, flight operations were conducted out of Iwakuni. On the 10th the Squadron joined other Marines in celebrating the 202nd Birthday of the Marine Corps. On the 14th, the quarterly PFT was run.

9. The last of November and early December were concerned with Exercises Cope Jade Delta, 15 - 17 November, and Cope Strike 78-4, 30 November - 2 December. Both exercises were executed in South Korea and flown from Iwakuni, Japan. See TABS 10 and 11 .

10. On the first of December, VMFA-251 observed the 36th anniversary of the squadron. The Thunderbolts were formed as VMO-251 on 1 December 1941.

11. The week of 7 - 14 December once again had the Marines of VMFA-251 participating in an Exercise conducted in South Korea. However, this time the flights were flown from Taegu Air Base. The operation was Exercise SSANG YONG VII/BLTX 1-78. Aircrews gained experience in operating from a Korean Air Base and flying Close Air Support for an amphibious assault. See TAB 13 .

12. Through out the past six months, the officers and men of VMFA-251 have endeavored through comprehensive aircrew training both in the air and on the ground, a strict Full Systems Capable Policy and a concentrated maintenance effort, to remain a Force in Readiness in the Far East and an effective instrument in keeping Peace on Earth.

PART III

SEQUENTIAL LISTINGS OF SIGNIFICANT EVENTS

1.

a. July

(1) VMFA-251 flew 89 sorties for 313.4 flight hours.

(2) VMFA-251 conducted 15.5 hours of aircrew training.

(3) 8 July 1977. The squadron flight ferried 12 F4J aircraft from MCAS Beaufort, S.C. to MCAS Yuma, Arizona, via aerial refueling. Three serials of 4 F4J aircraft were involved.

(4) 9 July 1977. Maintenance standown and TransPac crew brief. TransPac operation titled "KEY GROVE".

(5) 10 July 1977. The first serial of 6 F4J's departed MCAS Yuma, Arizona and landed at MCAS Kaneohe, Hawaii. The flight was augmented with two aerial refueling periods and a C-9 pathfinder.

(6) 11 July 1977. The second serial of 6 F4J's departed MCAS Yuma and landed at MCAS Kaneohe, Hawaii. A C-9 pathfinder was used and two aerial refueling periods completed enroute.

(7) 12 - 16 July 1977. Squadron was hosted by VMFA-212 at MCAS Kaneohe maintenance standdown.

(8) 17 July 1977. The first serial of 6 F4J's, accompanied by a C-9 pathfinder, departed MCAS Kaneohe and landed at Wake Island AFB. Two aerial refueling periods were completed enroute.

(9) 18 July 1977. The second serial of 6 F4J's, accompanied by a C-9 pathfinder, departed MCAS Kaneohe enroute to Wake Island AFB. Two aircraft diverted, for mechanical reasons, to Johnston Atoll. The remaining 4 F4J's recovered at Wake Island AFB.

(10) 20 July 1977. Two F4J's flew from Johnston Atoll and recovered at Wake Island AFB.

(11) 20 - 23 July 1977. Maintenance standdown.

(12) 24 July 1977. The first serial of 6 F4J's, accompanied by a C-9 pathfinder, departed Wake Island AFB and recovered at MCAS Iwakuni, Japan.

(13) 26 July 1977. The second serial of 6 F4J's, accompanied by a C-9 pathfinder, departed Wake Island and recovered at MCAS Iwakuni, Japan. VMFA-251's participation in TransPac Key Grove was completed. The Thunderbolts had arrived in WestPac! See TAB (1).

(14) 27 July 1977. Squadron aircrews received a brief on the Korea Buffer Zone procedures.

(15) 30 July 1977. Aircrews received lectures on ATC procedures and a local area brief for Iwakuni.

b. AUGUST

(1) VMFA-251 flew 157 sorties for 234.1 flight hours.

(2) VMFA-251 completed 16.0 hours of aircrew training.

(3) 2 August 1977. Aircrews received lectures on the Korea Air Order of Battle and the Peacetime Rules of Engagement.

(4) The next three weeks (3-22 August 1977) were dedicated to familiarization with the local flying and working areas while flying BAM and Fighter Intercept Missions.

(5) 23, 24, 25 and 26 August 1977. During this four day period, VMFA-251 was involved in two operations: Readiness Check Alligator took place on 23 and 24 August and Exercise Cope Strike Mike/Cope Jade Charlie took place 23 - 26 August 1977.

(6) Excheck Alligator was designed to test the Group/Squadrons' ability to pack up entirely and mount out. The Squadron was notified of the Exercise at 1300, 23 August and was ready for inspection by LtGen BROWN, CGFMFPAC, at 1300, 24 August. By 2030, 24 August the Squadron was unpacked and back to normal operations. The Thunderbolts had proven to be a Force in Readiness.

(7) Exercise Cope Strike Mike/Cope Jade Charlie involved flying CAS missions into South Korea from Iwakuni, Japan. In addition to the CAS missions, squadron aircraft also flew photo/recon escort and faker missions while egressing from the target. A total of 9 sorties for 24.4 hours were flown during this exercise. See TAB (5).

(8) The remainder of August saw the Thunderbolt's flying dissimilar ACM against the H&MS-12 TA-4's and flying fighter intercepts.

(9) 31 August 1977. Capt. R. A. KLEHM surpassed 1,000 hours of flight time in the F4 aircraft.

c. <u>September</u>

(1) VMFA-251 flew 160 sorties for 238.6 flight hours.

(2) VMFA-251 conducted 10.0 hours of aircrew training.

(3) 8 September 1977. Five aircraft were flight ferried to Clark AFB., Philippines.

(4) 10 - 24 September 1977. VMFA-251 Det Alpha participated in Cope Thunder XI at Clark AFB, Philippines. Det "A" consisted of 5 F4J aircraft, 10 aircrew and 37 support personnel. Major C. COWELL was the Det Officer in Charge. See TAB (6).

(5) 12 - 16 September 1977. Two aircrew: Capt L. W. MARR and Capt J. R. SNOWDEN completed the MAWTUPAC ACT(I) course.

(6) 13 September 1977. Capt. T. A. WAGNER flew with MajGen N. C. NEW, CG 1stMAW. This flight was a FAM HOP in the F4J for MajGen NEW.

(7) 13 - 16 September 1977. Major J. R. CADICK attended the annual Fighter Weapons symposium held at NAS Miramar, California.

(8) 19 September 1977. The squadron ran the quarterly PFT. One F4J was ferried to Clark AFB via Kadena AFB, Okinawa.

(9) 21 September 1977. Five squadron aircraft were flight ferried from MCAS Iwakuni to NAS Cubi Pt., R.P. to begin a one month deployment.

(10) 24 September 1977. After completion of Cope Thunder XI, six aircraft launched from Clark AFB and recovered at NAS Cubi Pt.

(11) 26 - 30 September 1977. During this period, the squadron flew Fighter Weapons and Fighter Intercept sorties. The primary objective of this phase was to obtain advanced aircrew training for those aircrews who participated in Cope Thunder and to re-establish a firm foundation for the remaining aircrews as a prelude to more advanced training.

d. <u>October</u>

(1) VMFA-251 flew 132 sorties for 235.2 flight hours.

(2) VMFA-251 completed 6.0 hours of aircrew training.

(3) 4 October 1977. 1stMAW Team arrived to conduct a Training/Readiness Evaluation (TRE) of VMFA-251. The first day involved aircrews taking four written exams. The squadron attained an overall average of 93% on the exams.

(4) 5 October 1977. The second day of the TRE consisted of a combination fighter attack escort (FAE) in the morning, ground attack in the afternoon and figher intercepts that night.

(5) 6 October 1977. The third day of the TRE consisted of a maneuvering missile shoot against 2 BQM's. Three F-4's were launched with one sparrow and one sidewinder per aircraft. The aircrews had three radar presentations against the BQM's and three AIM-7's were fired. There was one AIM-7 direct hit. There were also two AIM-9's fired with one resulting in a direct hit.

(6) 7 October 1977. The last day of the TRE involved dissimilar ACM in the morning and a debrief by the evaluators in the afternoon.

(7) 8 - 12 October 1977. During this five day period, the squadron concentrated on Fighter Weapons training using the H&MS-12 TA-4's as adversaries. The squadron was able to fly some FW flights in the more realistic arena where the bogies outnumber the fighters.

(8) 13 - 21 October 1977. During this period, the Thunderbolts were involved in Exercise Fortress Lightning. The mission of the squadron was to establish and maintain air superiority for the "Blue Forces" by flying combat air patrols, intercepting and identifying unknown aircraft in the amphibious objective area and scrambling aircraft from strip alert. During Fortress Lightning, the squadron flew a total of 66 sorties and stood strip alert for 59 hours. See TAB (9).

(9) 20 October 1977. Major O. E. HAY surpassed 2000 hours of flight time in the F4 aircraft.

(10) 22 October 1977. Five squadron aircraft were flown from Cubi Pt., R.P. to MCAS Iwakuni, Japan via Kadena AFB, Okinawa.

(11) 23 October 1977. Five squadron aircraft were flown from Cubi Pt., R.P. to MCAS Iwakuni, Japan via Kadena AFB. Okinawa. One aircraft was left in Cubi Pt. for induction into the Fleet Aircraft Western Pacific Repair Activity (FAWPRA) for complete paint stripping, corrosion treatment and repainting.

e. November

(1) VMFA-251 flew 89 sorties for 149.0 flight hours.

(2) VMFA-251 completed 10.5 hours of aircrew training.

(3) 1 - 14 November 1977. During this period, the squadron flew day and night Intercepts with an occasional FW hop.

(4) 10 November 1977. The Thunderbolts celebrated the 202nd Birthday of the Marine Corps.

(5) 14 November 1977. The squadron ran the quarterly PFT.

(6) 15 - 17 November 1977. VMFA-251 participated in Exercise Cope Jade Delta. The squadron was tasked to conduct CAS, CAS CAP, and FAKER missions in South Korea while flying out of MCAS Iwakuni, Japan. Of the 24 sorties scheduled, 18 or 75% were cancelled for weather. A total of 9 sorties were flown for a total of 20 hours. See TAB (10).

(7) 21 November 1977. The Squadron S-5 section (Safety and Standardization), headed by Capt. L. R. FUCHS, received a Safety, Natops and Maintenance inspection from FMFPac. The S-5 section received a noteworthy with very favorable comments from the inspector.

(8) 30 November 1977. The squadron participated in Exercise Cope Strike 78-4 in South Korea. The exercise lasted until 2 December. A total of 8 sorties were flown for a total of 19.6 hours. See TAB (11).

f. December

(1) VMFA-251 flew 187 sorties for 265.9 flight hours.

(2) VMFA-251 conducted 3.5 hours of aircrew training.

(3) VMFA-251 celebrated it's 36th Anniversary. Commissioned 1 December 1941.

(4) 5 - 16 December 1977. Capt. R. R. POSPISCHIL attended the Close Air Support Conference conducted by MAWTUPAC at MCAS El Toro, California.

(5) 7 - 14 December 1977. VMFA-251 participated in Exercise SSANG YONG VII/BLTX 1-78 in South Korea. The squadron deployed a detachment of six aircraft to Taegu Air Base. While deployed to Taegu the detachment flew 47 sorties for a total of 64.6 hours. Aircrews gained substantial experience in operating from a Korean Air Base, functioning within the Air Force Command and Control Networks, and VFR Navigation in Korea. See TAB (13).

(6) 16 December 1977. Four squadron aircraft departed for a Fighter Weapons Cross Country to Kadena, AFB, Okinawa. Dissimilar ACM was accomplished against Marine AV-8 Harriers based at Kadena AFB.

(7) 18 December 1977. The Thunderbolts joined other MAG-15 Marines in hosting children from a local orphanage for a Christmas party.

(8) 25 December 1977. Christmas Holiday.

(9) 31 December 1977. The officers and men of VMFA-251 ended the year and the first half of the squadron WestPac deployment by helping to keep Peace on Earth.

PART IV

SUPPORTING DOCUMENTS

TAB 1 Operation Plan 2-77 (Operation KEY GROVE)

TAB 2 Post Operation Report (Operation KEY GROVE)

TAB 3 After Action Report (Readiness Exercise Alligator)

TAB 4 Operation Plan 3-77 (Operation COPE JADE CHARLIE/COPE STRIKE MIKE)

TAB 5 After Action Report (COPE JADE CHARLIE/COPE STRIKE MIKE)

TAB 6 Operation Plan 4-77 (Operation COPE THUNDER XI)

TAB 7 Post Operation Report (Operation COPE THUNDER XI)

TAB 8 Operation Plan 5-77 (Operation T-BOLT BREAKOUT)

TAB 9 Post Deployment Report (Philippine Deployment)

TAB 10 After Action Report (COPE JADE DELTA)

TAB 11 After Action Report (COPE STRIKE 78-4)

TAB 12 Operation Plan 6-77 (Operation BLTX 1-78)

TAB 13 After Action Report (Operation BLTX 1-78)

OPERATION KEY GROVE

TAB 1

Copy___of___Copies
Marine Fighter Attack Squadron 251
MCAS, BEAUFORT, SOUTH CAROLINA 29902
290800Z JUNE 1977
JRC-2

Operation Plan 2-77 (Operation KEY GROVE, Phase I)

Ref: (a) CG FMFLant LOI 13-77 (091557Z Jun 77)
(b) CG 2d MAW LOI 16-77 (132002Z Jun 77)
(c) FMFPac O P3710.3B
(d) NWIP-10
(e) OPNAVINST 3710.7H
(f) OPNAVINST 5442.2

TIME ZONE: Z

Task Organization:

VMFA-251 LtCol ALLINDER Jr.

VMFA-251 DET ALPHA Major COWELL

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces

(1) 3d Marine Aircraft Wing provides planning, liaison, logistical and air refueling support from MCAS Yuma to MCAS Iwakuni.

(2) 2d Marine Aircraft Wing provides planning, liaison, logistical and air refueling support from MCAS Beaufort to MCAS Yuma.

(3) Marine Aircraft Group 31 provides liaison and logistical support from MCAS Beaufort to MCAS Yuma.

(4) Marine Aerial Refueling/Transport Squadron 252 provides aerial refueling support from MCAS Beaufort to MCAS Yuma.

(5) Marine Aerial Refueling/Transport Squadron 352 provides airlift and aerial refueling support from MCAS Yuma to MCAS Iwakuni.

(6) Marine Aerial Refueling/Transport Squadron 152 provides airlift support from MCAS Beaufort to MCAS Iwakuni.

(7) VR-[illegible] and SOES, COMCABEAST provides C-9 aircraft for pathfinder support.

(8) 41st RWRW provides DUCKBUTT (Rescue) and enroute assistance services.

(9) MCAS Yuma provides base facilities and enroute refueling service.

(10) MCAS Kanehoe provides base facilities and enroute refueling service.

(11) Wake Island AFB provides base facilities and enroute refueling services.

(12) Military Airlift Command (MAC) provides airlift support from MCAS Beaufort to MCAS Iwakuni.

2. MISSION

VMFA-251 conducts a Transcontinental and TransPacific deployment in connection with a 12 month deployment to the Western Pacific. The movement takes place from 8 July to 25 July 1977 from MCAS Beaufort, South Carolina to MCAS Iwakuni, Japan.

3. EXECUTION

a. General. As directed by references (a) and (b), and in accordance with reference (c), VMFA-251 will deploy to MCAS Iwakuni, Japan during the period 8 July to 25 July 1977, with 12 F4J aircraft and associated pathfinders, refuelers and transport aircraft. The squadron will conduct a 12 month Westpac deployment and return to MCAS Beaufort during July 1978.

b. VMFA-251

(1) Provide operational planning and principal liaison between all units concerned.

(2) Deploy to MCAS Iwakuni, Japan with 12 F4J aircraft, 31 officers and 239 staff and enlisted men (includes IMA augmentation). Annex A (Air Operations) contains details of all flight planned during the TRANSPAC.

(3) Flight Ferry 12 F4J aircraft to MCAS Yuma, via aerial refueling on 8 July 1977.

(4) Flight Ferry 12 F4J aircraft to MCAS Kanehoe, Hawaii on 10 and 11 July 1977 (six per day).

(5) Flight Ferry 12 F4J aircraft to Wake Island AFB on 18 and 19 July 1977 (six per day).

(6) Flight Ferry 12 F4J aircraft to MCAS Iwakuni, Japan on 23 and 25 July 1977 (six per day).

(7) Conduct air operations as directed by CG 1st MAW during a 12 month unit deployment in WestPac.

(8) Provide enroute support teams (EST) for MCAS Yuma, MCAS Kanehoe and Wake Island AFB as depicted in Annex B.

(9) Airlift remaining personnel and equipment by MAC flight as shown in Annex B.

(10) Submit MOVREPS in accordance with reference (d), as necessary.

(11) Submit daily flight data to MAG-31, MAG-15 and 3d MAW in accordance with reference (c). The primary means of transmittal will be by message.

(12) Submit 3M data in accordance with reference (f).

(13) Submit daily reports to the Trans Oceanic Force Commander (TOFC) in accordance with the 3d MAW TRANS PAC OPPLAN (To be published at a later date).

(14) Submit an after action report in accordance with reference (c) and applicable 1st MAW directives within 10 working days after arrival at MCAS Iwakuni, Japan.

c. Coordinating Instructions

(1) The code name for this exercise is KEY GROVE (Phase I). The use of this code name is unclassified when used in relation to the TRANSPAC alone.

(2) L day, H Hour is 101700Z July 1977.

(3) See Annex C for Intelligence information concerning the TRANSPAC operation.

4. ADMINISTRATIVE AND LOGISTICS

(a) See Annex B (Administrative and Logistics).

5. COMMAND AND SIGNAL

(a) Signal. The primary method of communication will be

the HF net established between the TOFC and [redacted]e transit bases. Autovon will be used as a secondary method, commercial circuit being used only when all else fails.

b. Command

(1) VMFA-251 advance party report OPCON to CG FMFPAC/ CG 1st MAW upon arrival at MCAS Iwakuni on 8 July 1977.

(2) VMFA-251 TRANSPAC element report OPCON/ADCON to CG FMFPAC upon arrival at MCAS Yuma on 8 July 1977.

(3) VMFA-251 TRANSPAC element reports OPCON to CG 3d MAW upon arrival to MCAS Yuma for the movement from MCAS Yuma to MCAS Iwakuni.

(4) VMFA-251 TRANSPAC element reports OPCON to CG 1st MAW upon arrival at MCAS Iwakuni (without report).

(5) VMFA-251 main body reports OPCON to CG FMFPAC/ CG 1st MAW upon arrival at MCAS Iwakuni (without report).

c. Command Posts

(1) Until 7 July 1977, MCAS Beaufort, South Carolina.

(2) 8 July 1977, MCAS Yuma, Arizona.

(3) 10 July 1977, MCAS Kanehoe, Hawaii.

(4) 18 July 1977, Wake Island AFB.

(5) 23 July 1977, MCAS Iwakuni, Japan.

M. W. Allinder Jr

M. W. ALLINDER Jr
Lieutenant Colonel, U. S. Marine Corps
Commanding

ANNEXES:
A. Air Operations
B. Administrative and Logistics
C. Intelligence
D. Maintenance

DISTRIBUTION: Distribution A plus
CG FMFLANT
CG FMFPAC
CG 2d MAW

CG 3d MAW
CG 1st MAW
CO MCAS Yuma
CO MCAS Kaneohe
CG 15th Air Force
CO Wake Island AFB
CO MCAS Iwakuni
MAG-31
MAG-15
VMGR-152
VMGR-252
VMGR-352
VR-30
SOES, COMCABEAST
41st RWRW
VMFA-115

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MCAS BEAUFORT, SOUTH CAROLINA 29902
290800Z JUNE 1977
JRC-2

Annex A (Air Operations) to Operation Plan 2-77

Ref: (a) NATOPS Air Refueling Manual
(b) 3d MAW Operation Order (TBPL)

Time Zone: Z

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces. See paragraph 1.b of the basic order.

2. MISSION

VMFA-251 deploys via flight ferry and airlift to MCAS Iwakuni, Japan in connection with a 12 month unit rotation to the Western Pacific.

3. EXECUTION

a. Concept of Operations. On 8 July 1977, the movement of F4J aircraft to MCAS Iwakuni begins and by 25 July 1977, 12 aircraft will be in place in Japan, having staged through MCAS Yuma, MCAS Kanehoe and Wake Island AFB.

b. VMFA-251

(1) 8 July 1977. Three serials of 4 F4J aircraft departs MCAS Beaufort enroute to MCAS Yuma. The route of flight is shown in Appendix 1 and the timing is shown in Appendix 2. The crews involved are as depicted in Appendix 3.

(2) 9 July 1977. Maintenance standdown and TRANSPAC crew brief.

(3) 10 July 1977. The first serial of 6 F4J with 2 F4J airborne reserves depart MCAS Yuma enroute to MCAS Kanehoe. The serial rendezvous with a C-9 pathfinder (departed MCAS El Toro) at YUCAN. At Mission Bay VORTAC, the 2 reserve F4's detach, unless needed, and return to MCAS Yuma. The route of flight, timing and aircrews are depicted in Appendices 1, 2 and 3.

(4) [illegible]. The second serial of 6 F4J's departs [illegible] enroute to [illegible]. Rendezvous with the C-9 pathfinder is scheduled to occur [illegible].

(5) 12-17 July 1977. Maintenance Standdown.

(6) 18 July 1977. The first serial of 6 F4J's, accompanied by a C-9 pathfinder, depart MCAS Kaneohe enroute to Wake Island AFB. Two airborne reserve F-4's will accompany the serial to SQUAT and then return, unless needed.

(7) 19 July 1977. The second serial of 6 F4J's, accompanied by a C-9 pathfinder, depart MCAS Kaneohe enroute to Wake Island AFB.

(8) 20-23 July 1977. Maintenance standdown.

(9) 23 July 1977. The first serial of 6 F4J's, accompanied by a C-9 pathfinder, departs Wake Island AFB enroute to MC S Iwakuni Japan. Two airborne reserve F4's will accompany the serial for 150 nautical miles and then return to Wake.

(10) 24 July 1977. Wake Island standdown. No flight operations.

(11) 25 July 1977. The second serial of 6 F4J's, accompanied by a C-9 pathfinder, depart Wake Island AFB enroute to MCAS Iwakuni, Japan.

c. Coordinating Instructions

(1) VMGR-352. Provides 4-5 KC-130 tankers in support of operations on 6 July 1977. The tankers aerial refuel the 3 serials of F4J's enroute to MCAS Yuma at the positions shown in appendix 1.

(2) VMGR-152. Provides 2 KC-130 (cargo configured) aircraft to transport the enroute support team (EST) from MCAS Beaufort to MCAS Yuma, MCAS Kaneohe, Wake Island AFB and MCAS Iwakuni. Airlift of the EST will be carried out in accordance with Annex B.

(3) VMGR-352. Provides 4-5 KC-130 tanker at each ARCP between Yuma and Iwakuni and an Airborne Standby Tanker (AST) along the route of flight 2[illegible] N. M. from each recovery base. Reference (b) refers.

(4) All aerial refueling will be carried out in accordance with reference (a).

(5) Airlift of the enroute support teams will be carried out in accordance with Annex B.

M. W. ALLINDER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendices

1. Flight Ferry Routes
2. Flight Sequencing
3. Flight Ferry Crews
4. Aircraft and Takeoff Data
5. Airfield and Enroute Data

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MCAS BEAUFORT, SOUTH CAROLINA 29902
290800Z JUNE 1977
JRC-2

Appendix 1 (Flight Ferry Route) to ANNEX A (Air Operations) to Operation Plan 2-77

Time Zone: Z

Ref: (a) NATOPS Refueling Manual

1. General

a. Twelve F4J aircraft will flight ferry to MCAS Iwakuni, Japan via MCAS Yuma, MCAS Kaneohe and Wake Island AFB. Aerial refueling will be used between MCAS Beaufort and Yuma, between MCAS Yuma and Kanehoe, between MCAS Kaneohe and Wake Island, and Wake Island AFB and MCAS Iwakuni. A description of the route to MCAS Iwakuni is at TAB A. The route of flight as per CARF clearance is as follows:

(1) MCAS Beaufort to MCAS Yuma

CLIMB TO FL 310 LVLOF NBC 278/62 (0+09) DRCT MCN (0+20) J-40 MGN (0+38) DRCT MCB (1+05) J-50 AEX (1+20) DRCT DECENT PT AEX 263/61 (1+28) (BLOCK FL 190-210 DRCT ARIP AEX 262/38 (1+31) DRCT ARCP AEX 261/139 (1+38) DRCT ENAR JCT 075/140 (2+01) CLIMB FL 310 JCT 075/115 (2+06) DRCT JCT (2+21) J-2 FST (2+42) J-2 ELP (3+05) J-2 CIE (3+38) J-2 GBN (3+48) J-2 MOHAK (3+56) J-2 YUM (4+00) DRCT NYL 340/43 (4+06)

(2) MCAS Yuma to MCAS Kaneohe

CLIMB TO FL 310 LVLOF NYL 258/62 (0+08) DRCT NZB (0+18) DRCT MALIT (0+34) DRCT ROSIN (0+40) DRCT YUCAN (0+48) DRCT 30°18'N 123°20'W (1+05) DRCT DECENT PT 29°48'N 125°25'W (1+20) DRCT ARCP 1 29°28'N 126°04'W (1+25) ABORT 29°24'N 126°59'W (1+36) DRCT EN AR 28°55'N 128°48'W (1+58) LEVEL FL 310 28°44'N 129°30'W (2+03) DRCT DECENT PT. 27°10'N 134°43'W (2+42) DRCT ARCP 2 26°58'N 135°20'W (2+47) ABORT 26°41'N 136°11'W (2+58) DRCT ENAR 25°57'N 138°23'W (3+26) LEVEL FL 310 25°44'N 139°00'W (3+31) CLIMB PT. 22°36'N 147°00'W (4+34) LEVEL 350 22°19'N 147°44'W (4+40) DRCT YULES (5+20) DRCT LOBRS (5+32) DRCT OGG (5+45) DRCT MKK (5+51) DRCT FALLS (5+58) DRCT NGF (6+08)

[illegible]

(3) [illegible]

[illegible] (0+02) DRCT [illegible] (0+16) DRCT [illegible] (0+25) DRCT DES PT [illegible] 165°20'E (0+59) DRCT ARCP 1 20°43'N 165°47'E (1+03) ABORT 20°51'N 166°30'E (1+14) DRCT EN AR 20°52'N 167°44'E (1+29) LEVEL FL 310 20°56'N 168°20'E (1+36) DRCT DESCENT PT 21°04'N 173°26'E (2+07) DRCT ARCP 2 21°05'N 174°15'E (2+12) ABORT 21°05'N 175°09'E (2+23) DRCT EN AR 21°04'N 176°02'E (2+34) LEVEL FL 310 21°03'N 177°00'W (2+41) DRCT DATE LINE 21°00'N 180°00'W (3+03) DRCT DATE LINE 21°00'N 180°00'W (3+03) DRCT TURN PT 20°08'N 170°00E (4+16) DRCT WAKE AFB 19°17'N 166°38'E (4+41)

(4) Wake Island AFB to MCAS Iwakuni

CLIMB TO FL 310 AWK 297/62 (0+08) DRCT CHECK PT. 20°12N 165°09'E (0+13) DRCT DECENT PT. 23°20'N 159°35'E (1+01) ARCP 1 23°42'N 159°00E (1+06) ABORT 24°55'N 158°22'E (1+17) DRCT EN AR 24°55'N 156°40'E (1+39) LEVEL FL 310 25°15'N 156°00'E (1+44) DRCT DECENT PT 27°25'N 151°20'E (2+21) DRCT ARCP 2 27°42'N 150°45'E (2+26) ABORT 28°05'N 149°55'E (2+37) DRCT EN AR 28°52'N 148° 15'E (2+59) LEVEL FL 310 29°19'N 147°25'E (3+04) DRCT CLIMB PT 31°00'N 142°49'E (3+39) LEVEL FL 350 31°19'N 142°00'E (3+45) DRCT KDK (4+28) DRCT SUC (4+47) DRCT NEU 179/38 (4+54) DRCT JOI (5+04)

b. Tanker procedures will be in accordance with reference (a).

c. Ferry Configuration

(1) Two 370 gallon wing and one 600 gallon centerline tank per aircraft.

(2) Two LAU-17's per aircraft.

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TABS
A. Flight Ferry Route Depiction

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MCAS BEAUFORT, SOUTH CAROLINA 29902
290800Z JUNE 1977
JRC-2

Appendix 2 (Flight Sequencing) to Annex A (Air Operations) to Operation Plan 2-77

Time Zone: Z

1. Beaufort to Yuma

   (a) 081200Z 4xF4
   081330Z 4xF4
   081730Z 4xF4

2. Yuma to Kanehoe

   (a) 101700Z 6xF4 + 1xC9

   (b) 111700Z 6xF4 + 1xC9

3. Kanehoe to Wake Island

   (a) 182000Z 6xF4 + 1xC9

   (b) 192000Z 6xF4 + 1xC9

4. Wake Island to Iwakuni

   (a) 232200Z 6xF4 + 1xC9

   (b) 252200Z 6xF4 + 1xC9

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[illegible]Z JUN 1977
[illegible]

Appendix 3 (Flight Ferry Teams) to Annex A (Air Operations) to Operation Plan 2-77

1. Aircrew Assignments (Beaufort to Yuma)

   a. Serial #1

      Pokey 1-1 LTCOL ALLENDER/MAJ HAY
      1-2 LT [illegible]/LT FOLEY
      1-3 CAPT POSPISCHIL/CAPT CRUDMAN
      1-4 CAPT LAMBERT/CAPT SNOWDEN

   b. Serial #2

      Pokey 2-1 CAPT WAGNER/LT HILL
      2-2 CAPT ADCOCK/LT SETH
      2-3 CAPT MAIR/LT SCHALK
      2-4 LT SHIPMAN/CAPT DOYLE

   c. Serial #3

      Pokey 3-1 MAJ CADICK/CWO HASSEY
      3-2 CAPT PERROTT/LT ELEK
      3-3 CAPT CALDERON/LT LARSEN
      3-4 CAPT SMITH/CAPT KLEHM

2. Aircrew Assignments (Yuma to Iwakuni)

   a. Serial #1

      GROVE 1-1 LTCOL ALLENDER/MAJ HAY
      1-2 LT [illegible]/LT FOLEY
      1-3 CAPT POSPISCHIL/CAPT CRUDMAN
      1-4 CAPT LAMBERT/CAPT SNOWDEN
      1-5 CAPT CALDERON/LT LARSEN
      1-6 CAPT SMITH/CAPT KLEHM

   b. Serial #2

      GROVE 2-1 MAJ CADICK/CWO HASSEY
      2-2 CAPT PERROTT/LT ELEK
      2-3 CAPT WAGNER/LT HILL
      2-4 CAPT ADCOCK/LT SETH
      2-5 CAPT MAIR/LT SCHALK
      2-6 LT SHIPMAN/CAPT DOYLE

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Appendix 4 (Aircraft and Takeoff Data) to Annex A (Air Operations) to Operation Plan 2-77

Time Zone: Z

Ref: (a) F4 NATOPS Flight Manual

1. The following weight, balance, and takeoff figures have been computed in accordance with reference (a), and utilize the data for the heaviest aircraft in the squadron.

2. Weight and balance figures for A/C 153856 (DW-06):

a. Basic weight (as of March 1977) 31,655
oil 111
aero 27A 51
unusable fuel 265
Total 32,082

Usable wing and fuselage fuel (JP-4) @ 6.8#/gal		13,587
Centerline fuel		4,080
Wing tank fuel (2)		5,032
	TOTAL	22,699#

External racks and tanks:		
(2) Sargent Fletcher wing tanks/pylons		616
Royal Jet Centerline		304
(2) Multi weapons adapters		48
(2) LAU-17A		300
	TOTAL	1,268#

Subtotal weight of DW-06	32,082
	22,699
	1,268
	56,049
Aircrew & flight gear	400
GRAND TOTAL WEIGHT OF DW-06	56,449

b. Drag Index

Basic Aircraft		0
Royal Jet C/L		9.6
(2) Sargent Fletcher (6.4)		12.8
(2) LAU-17A (2.4)		4.8
	TOTAL DI	27.2
	ROUND OFF TO	30.0 DI

c. Incremental CG shift computed for DW-06 in transpac configuration:

		35.00%
(2) wing tank/pylons	+	.26
centerline	+	.21
(2) LAU-17A	-	.14
(2) Multi weapons adaptor	-	.04
		35.29% MAC

d. Stability Number:

Royal Jet C/L	0.0
(2) Sargent Fletcher wing	40.0
(2) LAU 17A (6.9 ea)	13.8
	53.8

3. Takeoff data for transpac configured aircraft (where applicable computed for a dry, 8000' runway, temperature of 70° F).

a. Maximum Abort Speed

(1) with drag chute - 135 KCAS

(2) without drag chute - 120 KCAS

b. Minimum go speed (with single engine failure) - 175 KCAS

c. Takeoff speed - 190 KCAS

d. Takeoff distance - 4400 ft.

e. Total distance to clear 50 ft obstacle - 6000 ft

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Appendix 5 (Airfield and Enroute Data) to Annex A (Air Operations) to Operation Plan 2-77

Time Zone: Z

1. The following is a list of destination airfields to include pertinent data extracted from the IFR Supplement.

MCAS YUMA. 32°29'N 114°37'W GMT-7

RWY LENGTH 13,300'

RWY 3L E-28(B) (3500') ——— E-28(B) (1831') RWY 21R

RWY 3R E-28(B) (2700') ——— E-28(B) (1800') RWY 21L

AERODROME REMARKS.

Heavy jet and extensive jet training operations vicinity airport. Caution RWY lights installed 10' outboard from edge of RWY 3R-21L. Traffic pattern altitudes: Jets 1700' MSL, military props and civils 1200'MSL, copters 700' MSL. Downwind rwy 8-26 crosses centerlines of primary jet rwy 21L & 21 R. Vicinity right base rwy 26 and left base 21L & R hazardous.

Communications:
TWR 382.8, 360.2
GRD 340.2
APP 374.8, 336.4, 314.0
METRO 349.9

TACAN NYL CHAN 84
NDB NYL 273.2

KANEOHE BAY MCAS. 21°27'N 157° 46'W GMT-10

RWY LENTH 7,700

RWY 04 E-5-1 (1397') E-28(B) (2730') ——— M-21(B) (3619') E-15(B) (1510') E-5-1 (1354') →

AERODROME REMARKS

[illegible] includes student training. Conventional aircraft enter traffic pattern at 1000'. Jet aircraft break at 15[illegible], [illegible] downwind. Request VFR flight transiting control area contact tower for traffic.

Communications
TWR 349.9,360.2
GRD 382.8
APP 263.6

TACAN NGF CH 93

WAKE ISLAND AFB. 19°17'N 166°38'E GMT+12

RWY LENGTH 9800'

NO ARRESTING GEAR

AERODROME REMARKS.

Inbound clearence will be relayed through base ops.

Inbound aircraft should contact Wake Ops 100NM out. Departure clearence will be relayed through Wake Ops.

Caution: Bird hazard on approach to RWY 10 or depart RWY 28, 900' coral overun . Ocean vessels with mast approx. 125 MSL periodically located at mooring buoys 3600' west of RWY 10. Obstructions lighted.

2 Box VASI left side RWY 10 GS 2.6°,
4 Box VASI left side RWY 28 GS 2.6°,

Communications
Wake operations 349.4

VORTAC	AWK	CH 82
NDB	AWK	254

IWAKUNI MCAS, 34°08'N 132° 14'E GMT+9

RWY LENGTH 8000'

RWY 01	MA-1A (MOD) (THLD)	E-28(B) (2000')	———	M-21(B) (1200')	E-28(B) (THLD)

AERODROME REMARKS.

CAUTION-Bird hazard on approach to RWY 01-19. CAUTION-North diagonal taxiway from runway to parallel taxiway open to flying club aircraft only. Reduced runway separation standard in effect for Navy/Marine aircraft. NOISE abatement-all aircraft will avoid overflying the industrial area one NM north of RWY 01-19.

Communications (ATIS 281.0)
TWR 340.2
GRD 360.2
APP 236.2
CLNC DEL. 310.6

TACAN NEO CH 35
NDB 281.0

REMARKS. In the event of loss of normal communications APP CON will broadcast clearence instructions on UHF NDB 281.0

2. The following is a list of divert airfields to include pertinent data extracted from the IFR Supplement.

BERGSTROM AFB. 30°13'N 97°40'W GMT-5

RWY Length 12,200'

RWY 17R BAK-12(B) (987') _____ BAK-12(B) RWY 35L (962')

AERODROME REMARKS.

CAUTION-HI MID-AIR potential, extreme vigilance required during approach to RWY 17R. Transit aircraft execute single full stop IFR approach. Heavy jet, conventional, and copter traffic near final approach course. (Robert Mueller Muni 6NM North and Tims Air Park 11 NM North). Flight of four or more aircraft PTR from Chief Airfield Management, ext 2611. RWY 17L-35R closed to jet aircraft first 1000' and last 1900' RWY 17L closed. VFR Traffic Pattern: Overhead 2400: rectangular 1900, light aircraft/copter 1400: VASI GS RWY 17R 3.0° and RWY 35L 2.5°.

Communications
TWR 255.6, 236.6
GRD 372.8
Austin App Con 362.3, 306.2
METRO 375.2
TACAN BSM CH 35

VANDENBERG AFB. 34°43'N 120°34'W GMT-7

RWY Length 8000'

No arresting gear

AERODROME REMARKS.

CAUTION-Deer may be on runway. Uncontrolled civil airport traffic 7NM SE. Sequence flashing lights extended to threshold. Alternate airport required regardless of weather. Traffic pattern: overhead 2100'; rectangular 1600'.

Communications
TWR 326.2
GRD 275.8
App Con 339.1
Metro 344.6

TACAN VBG CH 58

SAN NICOLAS ISLAND. 33°14'N 119°28'W GMT-7

RWY Length 10,000'

RWY 12 E-5-1 (2600') ——— E-28(B) (3250') E-5-1 (2850') →

AERODROME REMARKS.

Official business only. Field subject to closure without prior notice due to drone missel operations. Aircraft except emergency divert to NAS PT. Mugu. Touchdown point RWY 30 2500' from threshold.

Communication
TWR 374.8, 360.2, 340.2
RADAR 345.2, 311.6, 308.4

TACAN NSI CH 39
HOB NSI 278.0

GENERAL LYMAN FIELD (HILO). 19° 43'N 155°03'W GMT-10

RWY Length 9800'

No Arresting Gear.

AERODROME REMARKS.

CAUTION-Paved area at approach end RWY 04 marked by chevrons not usable. 131' smokestack located 5NM south of airfield. Bird flocks vicinity of airfield. RWY 03 displaced 350'HE. Warm up area adjacent to and south of approach end RWY 26, taxiways T from taxiways [illegible] terminal [illegible] from tower. RWY and approach light available thru Hilo tower.

Communications
TWR 263.1
HILO APP. 269.2
HILO RADIO 272.7

B VORTAC ITO CH 116

BARBERS PT NAS. 21°19'N 158°05'W GMT-10

RWY Length 8400'

RWY 04L E-28(B) (2500) ——— E-5-3 (2450') → ← E-5-3 (1280') RWY 22

RWY 04R E-28(B) (1300') ——— E-28(B) (2800') RWY 22

RWY 11 E-28(B) (1200') ——— E-5-1 (2300') → RWY 29

AERODROME REMARKS.

CAUTION-Descending ILS aircraft to Honolulu International over north boundary, 360° overhead approach not authorized RWY 22 due to ILS aircraft to Honolulu International. CAUTION-Large auto track oriented 055°-235 magnetic located 1 NM west of approach to RWY 11 can be mistaken for landing area. 140' unlighted pole bearing 262° magnetic 3137' from intersection RWY 04L and 11. Right hand pattern for RWY 11, left hand pattern for all others.

Communications
TWR 340.2, 360.2
GRD 336.4
Honolulu App- 269.0
B VORTAC HNL CH 100
NDB NAX 276.2

MIDWAY NS. 28°12'N 177°23'W GMT-10

RWY Length 7900'

RWY 06 E-5-3 (2000') → ← E-5-3 (3130') E-5-3 (2611') → ← E-5-3 (1500') RWY 24

CAUTION - Unlighted 14' embankment end of 2100' overrun RWY 06. Water on north/south taxiway hazardous during and after rain. Heavy large bird activity in vicinity from Nov. to Aug. Active burning dump near approach end RWY 24 may lead to unusual odors in aircraft. File flight plan from MIDWAY two hours prior to departure.

Communications
TWR 340.2, 236.6
App Con. 257.8, 236.6

TACAN NQM CH 93
NDB NQM 265.2

JOHNSTON ATOLL. 16°44'N 169°32'W GMT-10

RWY Length 9000'

No Arresting Gear

AERODROME REMARKS.

CAUTION: 640' tower located 6700' 036° magnetic from departure end RWY 05. Birds all quadrents. RWY lights off. Inbound aircraft expect decent and approach clearence from Honolulu ARTCC thru Hickam Airways. Johnston Radio will monitor UHF and provided terminal advisories. Inbound aircraft contact Johnston Radio 100NM out for terminal advisory service and advise service required. Departure clearance will be coordinated via phone by the aircraft commander and Honolulu ARTCC, north taxiway closed. NO runway foaming capability.

Communications
Johnston Radio 344.6

TACAN JOH CH 55 (Intermittent 40° false lock on between 001° → 090°)

NYSTAPARU. 32°05'N 131°27'E GMT + 9

RWY Length 8800'

RWY 10 MA-1A BAK-9(B) _____ MA-1 BAK-9(B) RWY28
(THLD) (THLD) (THLD) (THLD)

AERODROME REMARKS:

RWY 28 has approach lights and non-standard VASI.

Communications
TWR 236.8 304.5
GRD 275.8

MIYAZAKI APP 362.3, 261.2

TACAN NHT CH 97

3. Enroute Data is contained in TABS A thru D.

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TABS

A. Enroute Data for MCAS Beaufort to MCAS Yuma
B. Enroute Data for MCAS Yuma to MCAS Kaneohe
C. Enroute Data for MCAS Kaneohe to Wake Island AFB
D. Enroute Data for Wake Island AFB to MCAS Iwakuni

MCAS BEAUFORT TO MCAS YUMA

NAME | DATE | BUNO | TIME OFF- | TIME ON-

	LATITUDE LONGITUDE	TAS	MACH	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
ST,T,T/O												2.0		20.0				
CLIMB					274	04	278	62	62	0+09	0+09	1.7	MIL	18.3				
MGM	32°41'N [illegible]°39'W	495	.85	470	275	03	278	86	148	0+11	0+20	1.4	7500	16.9		NBC 42	86	BFT
J-20 MGM	32°13'N 85°19'W	495	.85	470	257	01	256	139	287	0+18	0+38	2.2	7300	14.7		CAQ 96	35	CRAIG AFB
[illegible]	31°18'N 90°15'W	495	.85	470	256	-01	255	208	496	0+27	1+05	3.2	7100	11.5		AEX 108	119	ENGLAND AFB
J-50 AEX	31°15'N 90°30'W	495	.85	470	267	-04	263	115	611	0+15	1+20	[illegible]	6900	9.8		AEX 108	4	ENGLAND AFB
DP	31°13'N 93°43'W	495	.85	470	268	-05	263	61	672	0+0[illegible]	[illegible]	.9	6600	8.9		AEX 108	63	ENGLAND AFB
ARIP	31°11'N 94°14'W	495	.85	470	266	-06	260	27	699	0+03	1+31	.5	9000	8.4		AEX 108	90	ENGLAND AFB
AROP	31°08'N 95°13'W	450	.8	430	267	-06	261	51	750	0+07	1+38	1.0	8400	7.4		BSM 35	140	BERGSTROM AFB
[illegible]	30°56'N 97°07'W	280		255	263	-07	256	98	848	0+23	2+01	2.6	12000	4.8 / 22.0	3.0	BSM 35	47	BERGSTROM AFB
FL 310	30°53'N 97°35'W	375	.85	350	263	-08	255	24	872	0+05	2+06	.7	MIL	21.3		BSM 35	40	BERGSTROM AFB

REMARKS/CLNC. 1. ON DECK BERSTROM WITH

[illegible]

NAME | DATE | BUNO | TIME OFF- | TIME ON-

TO	LATITUDE LONGITUDE	TAS	MH[illegible]	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
J[illegible]	30°35'N [illegible]	405	[illegible]	[illegible]	2[illegible]	-0[illegible]	2[illegible]	116	[illegible]	[illegible]	[illegible]	1.9	7000	19.3		SKF 22	95	KELLY AFB
J-2 [illegible]	3[illegible]°57'N [illegible]°57'[illegible]	[illegible]	"	" "	247	-0[illegible]	2[illegible]	165	1153	+15	2+21	2.6	7500	16.7		ELP 99	180	EL PASO INT
J-2 ELP	31°[illegible]'N [illegible]°17'[illegible]	405	"	"	247	-10	27[illegible]	177	1330	+23	3+05	2.8	7300	13.9		ELP 99	4	EL PASO INT
J-2 [illegible]	3[illegible]'N [illegible]°015'W	4[illegible]	"	"	274	-11	26[illegible]	178	1500	+2[illegible]	3+2[illegible]	2.8	7200	11.1		DMA 111	57	DAVIS MONTHAN AFB
[illegible]	32°57'N 112°40'W	[illegible]	"	"	290	-12	27[illegible]	158	1656	+20	3+1[illegible]	2.3	6900	8.8		LUF 77	61	LUKE AFB
J-2 [illegible]	32°46'N 113°57'W	[illegible]	"	"	260	-13	24[illegible]	66	1732	+0[illegible]	3+5[illegible]	.9	6600	7.9		NYL 24	33	MCAS YUMA
J-2 [illegible]	32°43'N 114°3[illegible]'W	495	"	"	26[illegible]	-13	25[illegible]	32	1764	+04	4+0	.4	6600	7.5				
NYL 340/43		495	"	"	351	-13	33[illegible]	43	1807	+06	4+0[illegible]	.5	5000	7.0				DESCEND FL 1[illegible]0

[illegible] ABNS/CLNG.

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A-57A-2 UNCLASSIFIED

MCAS YUMA TO MCAS KANEOHE CHART #2

NAME [illegible] DATE [illegible] BUNO [illegible] TIME OFF- [illegible] TIME ON- [illegible]

TO	LATITUDE LONGITUDE	TAS	MH	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
NZL	C 310	↗	↗	↗	↗	14E	↗	62	62	08	08	1.8	↗	18.2	-	NZL ch84	62	
[illegible]	32 47N 117 13W	490	.85	450	272	"	258	78	140	10	18	1114	7500	17.0	-	"	140	[illegible]
[illegible]	32 29N 119 35W	"	"	"	261	"	247	121	261	16	34	1728	7300	15.2	-	"	261	
[illegible]	31 55N 120 15W	"	"	"	227	"	213	47	308	06	40	671	7200	14.5	5.0	"	308	FL 390/.87/500TAS .093 NM F/F 5400 LBS +36 MIN. 2,000 # ON DECK
[illegible]	31 35N 121 22W	"	"	"	250	"	236	60	368	08	48	857	7100	13.6	6.0	"	368	
TURN POINT	30 18N 123 20W	"	"	"	233	"	219	127	495	17	1+05	1814	7000	11.8	5.0 4.5	[illegible] ch39	262	SINGLE ENGINE .65/[illegible] F/F 5500 DI=0 F/L 210
DESCENT POINT	29 [illegible] 125 25W	"	"	450	254	"	240	113	608	15	1+20	1614	7000	10.2	7.5 7.0	NKX OR [illegible]	453 310	
ARCP 1	29 38N 126 04W	490	.85	↘	254	"	240	35	643		1+25	200	→	10.0	8.0 7.5	"	493 415	
ARCPT	29 [illegible] 126 59W	280	.45	280	254	"	240	50	693	11	1+34	2000	12,000	8.0	8.5 7.5	"	543 462	AR 12,000 #
END AR	28 53N 128 48W	280	.45	280	253	"	239	100	793	22	1+58	4000	MIL	22.0	9.5 9.5	"	643 550	
LEVEL OFF	28 44N 129 30W	490	.85	450	253	"	239	40	833	5	2+03	700	MIL	21.3	10.0 10.0	"	683 715	

REMARKS/CLMC.

1. DI=30
2. .85IMN/490TAS
3. WIND FACTOR=40KTS
4. BINGO=2000# ON DECK

[illegible] YUMA TO [illegible] CHART #1

NAME | DATE | BUNO | TIME OFF- | TIME ON-

TO	LATITUDE LONGITUDE	TAS	MH	GS	TRU HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
[illegible]	[illegible] [illegible]	[illegible]		450	251	14E	237	291	1124	39	2+4[illegible]	4157	7500	17.1	14.5 15.0	[illegible]	974	
D TO [illegible]	[illegible] [illegible]	490	.85	[illegible]	2[illegible]0	"	[illegible]	35	1159	0[illegible]	[illegible]	200	[illegible]	16.9	14.5 15.0	"	1009	
[illegible]	[illegible] [illegible]	[illegible]	.45	[illegible]	[illegible]50	"	236	50	1209	11	[illegible]	[illegible]000		14.9	15.5 16.5	"	1059 942	SINGLE ENGINE [illegible] [illegible]
[illegible]	[illegible] [illegible]	2[illegible]0	.45	[illegible]	249	13[illegible]	236	125	1334	28	3+2[illegible]	5600	MIL	22.0	14.5 17.0	HILO ch116	991	AIR REFUEL 13,400 #
[illegible] 310	35 [illegible] 159 [illegible]	490	.85	450	[illegible]49	"	[illegible]36	36	1370	05	3+31	700	MIL	21.3	13.5 16.0	"	955	
[illegible] PT.	[illegible] [illegible]	490	.85	450	248	"	[illegible]35	476	1846	63	4+34	6800	7300	14.5	7.5 8.5	"	479	
[illegible] 350	22 19N [illegible]	510	.88	470	246	12E	[illegible]34	45	1891	06	4+4[illegible]	700	7000	13.8	7.0 [illegible].0	"	434	
[illegible]	20 49 N [illegible]	510	"	"	253	"	[illegible]41	310	[illegible]201	40	5+20	3974	6500	9.8	6.5	"	-	USE [illegible] TO HILO
[illegible]	21 [illegible] [illegible]	510	"	"	277	"	[illegible]65	94	[illegible]295	12	5+3[illegible]	1205	6000	8.6	-	"	-	
[illegible]	20 [illegible] [illegible]	510	"	"	267	"	[illegible]55	100	2395	13	5+45	1282	6000	7.3	-	NGF ch 93	-	
[illegible]	[illegible] [illegible]	[illegible]	[illegible]	[illegible]	290	"	[illegible]78	44	2439	06	5+51	600	[illegible]	6.7	-	"	-	
[illegible]/[illegible]. FALLS	[illegible]	[illegible]	[illegible]	[illegible]	351	"	339	56	[illegible]495	07	5+5[illegible]	700	[illegible]	6.0	-	"	[illegible]	
NGF	21 [illegible] 157 [illegible]	250	-	250	202	"	190	31	[illegible]526	10	[illegible]		TACAN APP	4.5	-	"	-	

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A-[illegible]

KANEOHE TO WAKE ISLAND AFB (CHART 1)

NAME DATE BUNO TIME OFF- TIME ON-

TO	LATITUDE / LONGITUDE	TAS	MN	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE / ATE	ETA / ATA	EST FUEL REQ / ACT FUEL	FUEL FLOW	EST FUEL LEFT / ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS	
NGF	2147N 15746W	∅	∅	∅	SID	11E	SID	16	16	--	--	∅	∅			NGF 93	16	REEF FIVE DEPARTURE	
HIL	2124N 15802W	4 9 0	.85	∅	2 0 4	"	1 9 3	20	36	--	--	∅	∅			"	36	HIL CH 100	
HELIC	21[illegible] 15[illegible]35W	4 9 0	.85	∅	2 3 9	"	2 2 8	33	69	09		2.0	7500 (3700x2)	18.0		"	69	CNH 243/49/103 LEVEL 310	
[illegible]	2047N 15928W	4 9 0	.85	4 7 0	2 5 4	"	2 4 3	54	1 2 3	07	16	900	7300 (3650x2)	[illegible]		"	1 2 3		
[illegible]T	2022N 16051W	4 9	.85	4 7	2 5	"	2 4	82	2 0 5	10	26	1280	7200 (3600x2)	15.8		"	2 0 5	DETACH SPARE A/C	
DESCENT	2045N 16520W	4 9	.85	4 7	2 7 5	"	2 6 4	2 5 5	4 3 0	33	59	4000	7000 (3500x2)	11.8	6.6 / 5.[illegible] · [illegible] 7.0 / 5.[illegible]	NGH 93 / J[illegible]55	425 / 335	.[illegible]7/5[illegible] D.I FL 2[illegible]0 30 / .87/500 C. FL [illegible] 30	F[illegible] 2[illegible] / .85/[illegible] / FL 210
ARCP 1	2[illegible]N 16557W	4 9 0	.85	∅	2 7 5	"	2 [illegible] 4	35	4 9 5	04	1+03	200	∅	11.6	6.5 / 5.[illegible] · [illegible] 7.5 / 5.0	[illegible] 93 / CH 55	462 / 315	" / "	SE " / "
ANCRF	2 51N 16[illegible]50W	2 8	.45	2 8 0	2 7 4	"	2 6 3	50	5 4 5	11	1+14	2000	12000 (6000x2)	9.6(16,000)	7.1 / 4.[illegible] · [illegible] 8.0 / 4.0	[illegible] 93 / CH 55	510 / 2[illegible]7	" / "	FL 28 / FL 210
END AR	20[illegible]3N 167[illegible]W	2 8	.45	2 8	2 7 4	"	2 6 3	50	5 9 5	11	1+25	2000	12000 (6000x2)	22.0	7.[illegible] / 4.5 · S.[illegible] 9.0 / 3.7	NGH 93 / CH 55	540 / 2[illegible]5	FL 37.5 / FL 3[illegible]	S.E FL 190 / FL 210
LEVEL [illegible]	2055N 1[illegible]630W	4 9 0	.85	4 7 0	2 7 4	"	2 6 3	45	6 4 0	5	1+30	700	MIL	21.3	8.2 / 4.5 · S.E 10.0 / 3.7	NGH CH 93 / CH 55	605 / 255	FL 37.5 / FL [illegible]	S.E F[illegible] 190 / [illegible]
DESCENT	2104N 17336W.	4 9	.85	4 7	2 7 4	"	2 6 1	2 9 0	9 3 0	37	2+07	4557	7500 (3700x2)	16.7	6.9 / 5.5 · S.E 7.7 / 5.3	MIDWAY CH 93 / CH 55	475 / 345	FL 3[illegible]0 / FL 390	S.E FL 210 / FL 210

REMARKS/CLNC.

(1) STKS, 2 LAVITA D. I = 30
(2) .85/490 TA's
(3) WIND FACTOR = 20KTS
(4) T/O WEIGHT = 56,400# (20,000# FUEL)
(5) BINGO TO MIDWAY/JOHNSTON =2000# ON DECK
(6) 10% SUBTRACTED FROM FUEL FOR FORMATION FLT

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MCAS KANEHOE TO WAKE ISLAND AFB (CHART 2)

NAME [illegible] DATE BUNO TIME OFF- TIME ON-

TO	LATITUDE LONGITUDE	TAS			TRUE		MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	[illegible]	MIN BINGO FUEL		BINGO TACAN	DIST	REMARKS	
[illegible] 2	[illegible] [illegible]	9 0	[illegible]	[illegible]			6 0	37	9 6 7	2	2+12	200	↘	16.5	[illegible] 5.[illegible]	S.E 7.5 5.	MIDWAY CH [illegible] CH [illegible]5	[illegible] 375	FL 300 FL 300	S.E FL 210 FL 210
[illegible]	[illegible] [illegible]	[illegible]	.45	[illegible] 0	2 7 0	"	2 6 0	50	1 0 17	11	2+21	2000	12000 (6000x2)	14.5@11,000	6.[illegible] [illegible]	S.E 7.3 6.9	MIDWAY CH 93 CH [illegible]	445 412	FL 300 FL 300	FL 210 FL 200
[illegible]	[illegible] [illegible]	[illegible]	.45	1 0 0	2 7 0	"	2 6 0	50	1 .0 6 7	11	2+34	2000	12000 (6000x2)	22.0	6.3	S.E 7.1	MIDWAY CH 93	435	FL 300	S.E FL 200
[illegible]	[illegible] 177[illegible]	9 0	.25	4 7 0	2 7 0	"	2 6 0	54	1 1 2 1	7	2+91		NIL	21.1	6.3	7.1	MIDWAY CH 93	4 3 0	FL 300	S.E FL 200
[illegible]	[illegible] [illegible]	4 9 [illegible]	.25	4 7 0	2 6 0	"	2 5 0	7[illegible] 0	1 2 91	22	3+02	2671	7500	18.4	6.4	7.4	MIDWAY CH 93	4 5 5	FL 390	S.E FL 200
[illegible]	[illegible] 17[illegible]	4 9 0	.25	4 7 0	2 3 5	93	2 5 6	5 7 0	1 8 6 1	1+13	4+14	8957	7300 (3650x2)	9.4	7.7 7.7	S.E [illegible]	MIDWAY CH [illegible]	5[illegible] 5[illegible]	FL 400 [illegible] PT	S.E FL 190
WAKE IS [illegible]	1917 N [illegible]	4 9 [illegible]	.85	4 7 0	2 5 6	73	2 4 9	1 9 5	2 0 5 6	25	4+41	3064	7000 (3500x2)	6.3	4.0	S.E 3.0	[illegible] CH 82	[illegible] 0 0	IAF 107/30 /CH 82 (UNK)	

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[illegible]/CLNG.

WAKE ISLAND AFB TO MCAS IWAKUNI (CHART #1)

MARK _____ DATE _____ BUNO _____ TIME OFF- _____ TIME ON- _____

TO	LATITUDE LONGITUDE	TAS	MACH	GS	TRUE HDG	VAR	MAG HDG	DIST LEG	DIST ENCE TOT.	ETE ACT	ETA ACT	EST FUEL REQ ACT	FUEL - FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS	
LEVEL OFF	29?/62/82	?"			303	6E			62	08	08	1,800	MIL	18.2	-	AWK CH 82	62	AWK 19 17N 166 33E	
OMBOK POINT	30 12N 165 09E	490	.85	450	303	6E	297	38	100	05	13	597	7500 (3700X2)	17.6	-	"	100		
DESCENT PT	23 20 N 159 35E	490	.85	450	303	5E	298	360	460	48	1+01	5657	7000 (3800X2	11.9	6.7 / 7.4 SE	"	460	FL 350 57/50 TAS DI 30	S.E. 65/400 DI = 0 FL 200
ARCP	23 42N 159 C0E	490	.85		303	5E	300	40	500	05	1+06	200	D->	11.7	7.0 / 8.0 SE	"	500	"	FL 200
ABORT	24 05N 158 22 E	280	.45	280	303	3E	300	50	550	11	1+17	[illegible]	12000 (6000X2)	9.7	7.7 / 8.7 SE	"	550	"	FL 190
END AR	24 55N 156 40E	280	.45	280	303	2E	301	100	650	22	1+39	4000	12000 (6000X2)	22.0	8.9 SE 10.0	"	650	FL 370	FL 180
LEVEL 310	25 15N 155 C0E	490	.85		303	2E	301	41	691	05	1+4		MIL	21.3	9.3 / 11.0 SE	"	691	"	FL 180
DESCENT PT	27 25N 151 20E	490	.85	450	303	0	303	280	971	37	2+21	4400	7300 (3650X2)	16.9	10.2 / 12.0 SE	ATSU SI CH9E	780	FL 36.5	FL 170
ARCP 2	27 42N 150 45E	490	.85		303	1W	304	35	1006	05	2+26	200	D->	16.7	10.0 / 11.9SE	"	750	FL 36.5	FL170
ABORT	28 05N 149 55E	280	.45	280	303	1W	304	50	1056	11	2+37	2000	12000 (6000X2)	14.7	9.3 / 11.0 SE	"	700	FL 370	FL 180
END AR	28 52N 148 15E	280	.45	280	303	2W	305	100	1156	22	2+59	4000	12000 (6000X2)	10.7 (6600)	8.3 / 9.2 SE	"	600	FL 37.5	FL 190

REMARKS/GENERAL:
1. 3TK, 2 LAU 17. DI=30
2. .85/490 TAS
3. WIND FACTOR=40 KTS
4. T/O WEIGHT=56,400# (20,000# FUEL)
5. BINGO=2000# ON [illegible]
6. 10% SUBTRACTED [illegible] FUEL FOR FORMATION FLT.

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WAKE ISLAND AFB TO MCAS IWAKUNI (CHART #2)

NAME DATE BUNO TIME OFF- TIME ON-

TO	LATITUDE LONGITUDE	TAS	MACH	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT.	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL LEFT ACT FUEL	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS	
LEVEL 310	[illegible]9 13N [illegible]7 25E	490	.85	↗	296	2W	290	45	1201	05	3+04	700	MIL	21.3	7.8 / 5.9 SE	ATSUGI CH 98	555	FL 380	S.E. FL 190
CLIMB [illegible]	31 [illegible]N 142 49E	490	.85	450	294	3W	297	260	1461	35	3+39	4000	7300 (3650X2)	17.3	5.3 / 5.0 SE	"	320	FL 390	FL 210
LEVEL 350	31 19N 142 00E	510	.88	470	294	4W	298	46	1507	06	3+45	700	MIL	16.6	4.8 / 4.0 SE	"	280	FL 390	FL 200
KI[illegible]	33 27N 135 48E	510	.88	470	292	5W	297	340	1847	43	4+28	5342	7000 (3500X2)	11.2	4.0 / 3.0 SE	NEU CH 35	185	FL 39.5	FL 220
SUC	TACAN CH 99	510	.82	470	253	5W	259	148	1995	19	4+47	2325	6000 (3000X2)	8.8	3.0 / 2.5 SE	"	90	FL 400	FL 230
[illegible] 179/38/35	IAF	↘	↘	↘	-	5W	↘	58	2053	07	4+54	911	↘	7.9	-	"	-		
[illegible]	34 08N 132 14E	250	-	250	-	5W	TACAN	38	2091	10	5+04	1500	↘	6.4	-	"	-		

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Annex B (Administration and Logistics) to Operations Plan 2-77

1. To be issued separately.

M. W. Allinder Jr

M. W. ALLINDER Jr
Lieutenant Colonel, U. S. Marine Corps
Commanding

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Annex C (Intelligence) to Operation Plan 2-77

Ref: (a). CPNAVINST 5510.1E

Time Zone: Z

1. Summary of Enemy Situation.

a. This annex and all appendixes are to be utilized as necessary for the tactical movement of the squadron to MCAS Iwakuni, Japan. For this operation enemy forces are not a factor.

b. The area of operation for this exercise will be a route from MCAS Baeaufort to MCAS Iwakuni, via MCAS Yuma, MCAS Kanehoe and Wake Island AFB.

c. For the duration of the transpac all intelligence procedures will be accordance with reference (a) and applicable FMFPAC directives.

2. Report sightings of any military vessels and/or aircraft as soon as practicable to the S-2 Officer, either written or verbally.

3. Miscellaneous. Sea survival in the Pacific will be the subject of aircrew training prior to departure and is not included in this annex.

M. W. Allinder, Jr.

M. W. ALLINDER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendixes

1. Climatology Data
2. Astronomical Data

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Appendix 1 (Climatology) to Annex C (Intelligence) to Operation Plan 2-77

Ref: (a) Telecon with NAS North Island METRO and VMFA-251 (S-3) of 17 June 1977

Time Zone: Z

1. Purpose. To provide climatology data for military flight operations.

2. Area Covered. This appendix includes Kanehoe, Wake Island and Iwakuni.

3. Climatological Summary for July, 1977.

	KANEHOE	WAKE	IWAKUNI
Average Daily Max (F°)	81	90	89
Daily Mean	77.5	83	80
Average Daily Min (F°)	74	76	77
Mean Relative Humidity (F°)	68	78	81
Mean No. Days Measurable Precipitation	7	3	13
Mean Ocean Temp (F°)	77	80	74
Average Cloud Cover measured in tenths	< .3	.5	.8

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Lieutenant Colonel, U. S. Marine Corps
Commanding

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Appendix 2 (Astronomical Data) to Annex C (Intelligence) to Operation Plan 2-77

Ref: (a) Astronomical Report by Aerology Section, NAS North Island.

Time Zone: Local

1. Purpose. To Promulgate astronomical data pertinent to flight operations.

2. Astronomical Data

KANEHOE

JULY	SUNRISE	SUNSET
10	0527	1843
15	0529	1843
20	0531	1842
25	0533	1840
30	0535	1838

WAKE

JULY	SUNRISE	SUNSET
10	0621	1937
15	0623	1937
20	0625	1936
25	0627	1934
30	0629	1932

IWAKUNI

JULY	SUNRISE	SUNSET
10	0457	1914
15	0500	1912
20	0503	1910
25	0506	1906
30	0510	1903

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Annex D (Maintenance Annex) to Operation Plan 2-77

Time Zone: Z

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces. See paragraph 1.b of the basic order.

2. MISSION

VMFA-251's organizational maintenance department will provide twelve operationally ready aircraft for transcontinental & transpacific movement to MCAS Iwakuni, in connection with a twelve month unit deployment to the Western Pacific.

3. EXECUTION

a. General. On 6 July 1977, VMFA 251's organizational maintenance department will be divided into three sections: The advance party, enroute support team Orange & Blue & the main body. The advance party will depart MCAS Beaufort for MCAS Iwakuni on 7 July 1977. Upon arrival MCAS Iwakuni, they will establish liaison with MAG-15 & insure adequate facilities are available to receive the main body, enroute support team & twelve F4J's. The enroute support teams will provide organizational level maintenance for twelve F4J's while enroute to MCAS Iwakuni. The main body will provide & launch twelve operationally ready aircraft for transcontinental movement on 8 July 1977. They will then embark on 18 July for movement to MCAS Iwakuni, they will establish an organizational maintenance facility & be prepared to receive 12 F4J's inbound from Wake Island.

b. Advance Party

(1) Depart MCAS Beaufort 7 July 1977.

(2) Upon arrival MCAS Iwakuni initiate liaison with MAG-15.

(3) Secure plant facilities necessary to support organizational maintenance department & assign work spaces to each work center.

(4) State GSE requirements & coordinate checkout procedures with H&M's 15.

(5) Initiate liaison with MAG-15 supply officer. Determine local supply procedures & provide for insertion of VMFA-251 into MAG-15's supply system.

c. Enroute Support Team Orange

(1) EST Orange will be composed of 18 Marines.

(2) On 7 July 1977, EST Orange will embark on C-130 for transcontinental movement to MCAS Yuma.

(3) Upon arrival MCAS Yuma establish contact with Fleet Liaison. Point of contact GySgt Singer (933-9214)

(4) Establish organizational maintenance capability at hangar 146. Assign work spaces to each work center.

(5) Initiate liaison with AIMD Yuma. Point of contact is Capt TABER (933-9423) MCCRTG-10 S-4.

(6) Obtain required GSE VIA AIMD Yuma.

(7) Be prepared to receive & service 12 F4J's aircraft on 8 July 1977.

(8) On 9 July 1977, embark on C-130 for movement to MCAS Kaneohe.

(9) Upon arrival MCAS Kaneohe initiate liaison with 1st Marine Brigrade via Mr Fowler (421-7701 Base Ops).

(10) Establish organizational maintenance capability in vicinity of VMFA 212's working spaces.

(11) Initiate liaison with H&MS 24 via VMFA 212's maintenance control.

(12) Obtain required GSE via VMFA 212.

(13) Be prepared to receive & service 12 F4J's beginning on 10 July 1977.

(14) On 17 July 1977, embark on C-130 for movement to Wake AFB.

(15) Upon arrival initiate liaison with Base Operations to secure working & line spaces for 12 F4J's.

(16) Establish organizational maintenance capability in assigned spaces.

(17) Secure prepositioned GSE provided by 1st MAW

(18) On 18 July 1977, be prepared to receive & service 12 F4J's.

(19) On 25 July 1977, embark on C-130 for movement to MCAS Iwakuni.

(20) Upon arrival MCAS Iwakuni EST Orange is dissolved.

d. Enroute Support Team Blue

(1) EST Blue will be composed of 27 Marines & H&MS 31 supply packup.

(2) On 8 July 1977, embark on C-130 for trancontinental movement to MCAS Yuma.

(3) Make enroute stops as required to repair squadron aircraft.

(4) Upon arrival MCAS Yuma report to hangar 146.

(5) Initiate Xrays & ETR's as required.

(6) Perform organizational maintenance as required.

(7) Initiate liaison with VMFA 235.

(8) On 10 July 1977, launch 9 F4J's for Trans Pacific movement to MCAS Kaneohe. (Two airborne spares)

(9) On 11 July 1977, launch 7 F-4J's for Trans Pacific movement to MCAS Kaneohe.

(10) Complete field day of hanger 146 and return facility to Fleet Liaison.

(11) Embark to MCAS Kaneohe via C-130. (11 July 1977)

(12) Upon arrival MCAS Kaneohe report to VMFA 212's hangar & perform organizational maintenance as required.

(13) On 18 and 19 July 1977, launch 12 F4J's (6 per day) for Trans Pacific movement to Wake AFB.

(14) 19 July 1977, embark aboard C-130 for movement to WAKE AFB.

(15) Upon arrival Wake AFB report to assigned line area & perform required maintenance.

(16) On 23 July 1977, launch six F4J's to MCAS Iwakuni.

(17) On 25 July 1977, launch six F4J's to MCAS Iwakuni.

(18) On 25 July 1977, embark on C-130 for movement to MCAS Iwakuni.

(19) Upon arrival MCAS Iwakuni EST blue is dissolved.

e. Main Body

(1) Launch 12 F4J's on 8 July 1977 for transcontinental movement to MCAS Yuma.

(2) Conduct technical training as detailed in monthly maintenance plan.

(3) Conduct field day on squadron hangar & ordnance shelters.

(4) Return all prepositioned IMRL gear to H&MS 31.

(5) Pack up all squadron property designated for embarkation to 1st MAW.

(6) Turnover squadron spaces to MAG-31 S-4.

(7) Obtain all key punched 3M & Data from MAG-31 analyst by 14 July 1977.

(8) On 18 July 1977, the main body will embark on commercial air for transportation to MCAS Iwakuni.

(9) Upon arrival MCAS Iwakuni report to MAG-15 & assume possession of assigned work spaces.

(10) Establish an organizational maintenance department in assigned spaces.

(11) Obtain necessary GSE & P,E & L, IMRL equipment.

(12) Submit all 3M & ASD Data to MAG-15 analyst.

(13) Be prepared to receive & service six F4J on the 23 & 25 of July.

f. Coordinating Instructions

(1) Upon colocation of EST Orange & Blue, EST Blue assumes command.

(2) All 3M & ASD data generated by the enroute support teams will be retained by maintenance admin & turned into MAG-15.

(3) Upon arrival of main body at MAG-15, advance party is dissolved.

(4) EST Blue & Orange are dissolved upon arrival MAG-15.

(5) MAG-31

(a) Provide supply pack up of A&W stores to accompany VMFA-251 during transcontinental & transpacific movement.

(b) Provide two supply personnel to accompany pack-up & process supply requisitions at MCAS Yuma, MCAS Kaneohe & Wake AFB.

(6) MCAS YUMA

(a) Complete IMA capability will be available from AIMD, MCAS Yuma, utilizing the standard work request forms.

(7) MCAS KANEOHE

(a) Complete IMA capability will be available from H&MS 24 utilizing the standard work request forms.

(8) WAKE AFB

(a) IMA level repairs & NORS requisitions will be handled on a individual basis as the needs arise.

M. W. Allinder Jr /

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Lieutenant Colonel, U. S. Marine Corps
Commanding

UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15
1st Marine Aircraft Wing
FPO San Francisco 96602

3:JRC:nl
3500
1 September 1977

From: Commanding Officer
To: Commanding General, Third Marine Aircraft Wing (Attn: TMCC)
Via: (1) Commanding Officer, Marine Aircraft Group 15
(2) Commanding General, 1st Marine Aircraft Wing

Subj: TRANSPAC KEY GROVE (Phase I) Post Operation Report

Ref: (a) FMFPacO P3710.2B
(b) CG 3rd MAW 171449Z Aug 77

Encl: (1) KEY GROVE POST OPERATION REPORT

1. In accordance with references (a) and (b), enclosure (1) is submitted.

M. W. Allinder

M. W. ALLINDER JR

Copy to:
CG 2nd MAW
CO MAG-31

CORRECTED COPY

TAB 2

KEY GROVE POST OPERATION REPORT

1. ABSTRACT. Operation KEY GROVE in support of a VMFA-251 WestPac deployment was conducted during the period 10 - 26 July 1977. (Movement of VMFA-251 to the KEY/GROVE departure base commenced on 8 July 1977 when 12 F-4J's executed a transcontinental flight from MCAS Beaufort to MCAS Yuma with aerial refueling provided by VMGR-252 in Operation ANT THRUSH). On 10 July, 7 F-4J's departed MCAS Yuma for MCAS Kaneohe. On 11 July, the remaining 5 F-4J's departed MCAS Yuma for MCAS Kaneohe. The departure dates from MCAS Kaneohe were the 17th and 18th of July. The second serial of 6 F-4J's on the 18th diverted a section into Johnston Island with a PC-- hydraulic failure and a generator failure. Repairs were completed and the two F-4J's arrived at Wake Island on 20 July. On 24 and 26 July serials of 6 F-4J's departed Wake Island and arrived MCAS Iwakuni.

2. PLANNING

a. Discussion

(1) Planning for KEY GROVE commenced on 8 March 1977 at a conference conducted by CG 3rd MAW, MCAS El Toro. The Squadron Commanding Officer and Aircraft Maintenance Officer attended the conference. Issues were raised and a number resolved at this conference. During March consideration was given to requiring the squadron to carrier qualify prior to the July deployment. As the squadron was not to stabilize until April during a tactical deployment to MCAS Yuma, carrier qualification would have caused significant training problems. In fact, carrier qualification would have required cancellation of the Yuma deployment, restricting leave to 14 days max, and would have impeded the maintenance effort to ready the aircraft for deployment. Consequently, the requirement for carrier qualification was dropped.

(2) During the Yuma deployment in April,1977, the Squadron Commanding Officer, Operations Officer and Aircraft Maintenance Officer, visited the 3rd MAW G-3 and acquired additional planning data for the route of flight and Enroute Support Team (EST) logistics. With this information and concurrent planning through frequent and detailed telephone calls, the Squadron published and distributed a detailed Operation Order on 29 June simultaneously with the transmission of the 3rd MAW Operation Order in 30 June (CG 3rd MAW 300129Z June 1977). A minimum of two weeks prior to D-Day is required for the squadron to expand upon the Wing OpOrder, to publish the Squadron OpOrder and to thoroughly prepare the TransPac participants. The key to success in any complex operation such as a transoceanic move lies in the planning and preparation stage. Details and contingencies must be analyzed and courses of action determined and rehearsed in advance. The excellent cooperation and concurrent planning data provided by LtCol Ray BRIGHT and CWO Dan O'SULLIVAN allowed VMFA-251, though located on the East Coast, to develop the detailed squadron plan

well in advance of the execution, resulting in a routine and safe TRANSPAC, all launches precisely on schedule, and all F-4J's arriving on schedule at MCAS Iwakuni.

b. Recommendations

(1) That MCAS Beaufort squadron's selected to TRANSPAC be provided all applicable FMFPac and 3rd MAW directives governing Transoceanic movement during and planning conference held four months prior to deployment.

(2) That tentative, yet detailed, enroute data based on previous TRANSPAC's be provided a minimum of two months prior to deployment.

(3) That, where possible, the 3rd MAW OpOrder be promulgated a minimum of two weeks prior to deployment and that concurrent planning data and information be passed telephonically as it is developed.

(4) That previous F-4 squadron TRANSPAC OpOrders and Post Operation reports be provided to F-4 squadron's selected to TRANSPAC. The VMFA-235 "Death Angels" provided this service to VMFA-251 and the information was invaluable for planning. VMFA-251 will develop a similar package and forward it to MAG-31 S-3.

3. OPERATIONS

a. Discussion

(1) All VMFA-251 aircrews received extensive ground training lectures concerning flight planning, aircraft performance mission profiles, aerial refueling procedures, emergencies, divert procedures, enroute airfields and water survival. Crews averaged five aerial refueling training sorties with three tanks during May and June 1977. Refuelers included DA-3D's, TA-4F (Tanker Configured) and KC-130F's. Additional refueling and final aircraft profiling were accomplished enroute to MCAS Yuma from MCAS Beaufort on 8 July.

(2) Aerial refueling buildup can be accomplished in one month in a static situation. However, extensive 2nd MAW and MAG-31 commitments in May (Exercise Solid Shield, Agile IBEX), squadron leave and significant aircraft maintenance problems required all of May and June to prepare for the 12 Month deployment on 8 July. All aircrews were qualified and each aircraft had profile data prior to 1 July.

(3) The transcontinental movement from MCAS Beaufort to MCAS Yuma went smoothly and as scheduled. VMGR-252 support for the training and the movement to Yuma was outstanding. During June, a KC-130 was periodically staged at MCAS Beaufort, dedicat to VMFA-235.

(4) No major operational problems were encountered at MCAS Yuma. The TRANSPAC brief was thorough. Minor delays in receiving the CARF occurred because it was addressed to VMFA-235.

(5) The first serial (7 F-4J's) plus 1 spare departed MCAS Yuma on 10 July. Ground operations went as planned. Los Angeles Center quickly cleared the flight direct to Imperial VORTAC thence flight plan route. The spare aircraft returned to MCAS Yuma as planned. The C-9 pathfinder took off late from MCAS El Toro and was behind the flight at the RDZ point. The 1st tanker RDZ went as scheduled; however, the 2nd tanker RDZ was missed. The F-4J's sighted the tankers at 9 O'clock, 5 miles and completed the visual rendezvous. Throughout the flight the information from the C-9 on positions and bingo to divert fields was outstanding. Communications and the KC-130R radars were excellent. The procedure used by the tankers to toboggan until all receivers were plugged-in was outstanding, providing plug-in airspeeds of 230 KTS. The tankers initially held all receivers plugged-in and released them one at a time. The result was seven F-4J's strung out when they entered IMC during the climbout from the second ARCP. Recovery at MCAS Kaneohe was degraded. The weather was forecast as "VFR" all along the route, yet the field was actually IFR upon arrival. Honolulu Center vectored the serial 70 miles NW of MCAS Kaneohe and then did not respond to further communications. The response from MCAS Kaneohe approach control was slow and unprepared to recover seven F-4J's in IFR. The senior watch officer was requested by the flight leader to rectify the situation. One F-4J had an external wing tank that did not transfer and because arrested landings were required due to rain and the wet runway, the wing tanks were jettisoned. VMFA-251 had previously coordinated with VMFA-212 to have an LSO standing by in case of any emergency recoveries, and he controlled the trapping of seven F-4J's in the rain. The second serial leader obtained a debrief from the first serial leader by phone prior to departure on 11 July. All problems encountered on the 10th were remedied and the second serial of 5 F-4J's had no difficulties. Rather than accept the vector to the NW given by center the serial cancelled IFR and proceeded to the field VFR. Recovery was routine.

(6) While at MCAS Kaneohe, several F-4J's were flown on post maintenance flights and the rest were turned up periodically to check all systems. VMFA-212 Marines were outstanding hosts and shared their assets.

(7) The 1st serial (6 F-4J's plus 2 spares) departed MCAS Kaneohe on 17 July. Departure instructions called for the flight to climb to 17,000 feet close to the field. This was changed to 12,000 feet, but it was difficult to comply. The radar departure was not standard and the slow climb rate of the C-9 resulted in it being overtaken by the F-4J's. At SQUAT intersection one aircraft was diverted back due to fluctuating oil pressure and a trim failure. This aircraft was replaced by an airborne spare and two aircraft returned to MCAS Kaneohe as planned. At the first ARCP one F-4J lost its probe door upon retraction after refueling.

The C-9 provided instant divert data, but the F-4J was able to proceed to destination. Again the communications, KC-130 radar and RDZ's were outstanding. The receivers came off the tankers together, simplifying the join up after refueling. Recovery at Wake Island was uneventful except for the severe bird hazard around the airport. The lack of suitable arresting gear would be a severe problem for F-4's with hydraulic failures. The second serial launched on 18 July. The C-9 crew misread their CARF and took off at 1000, which was the scheduled F-4J roll time. This delayed the F-4J's by 10 minutes. At the first ARCP, one F-4J experienced a PC-1 hydraulic failure. The serial leader diverted that section into Johnston Island. The C-9 pathfinder provided outstanding services by immediately transmitting Bingo information and clearance for the section. Johnston Island TACAN was out of service and UHF/DF steers were utilized for recovery. The remaining four F-4J's recovered at Wake Island. The #2 EST followed the divert aircraft into Johnston Island and performed field expedient repairs. On 20 July the two F-4J's departed Johnston Island for Wake Island. Although facilities were sparse at Wake, no effort was spared to accomodate the TRANSPAC crews and it was a highlight of the trip. The FOD hazard at Wake Island is severe. Strong winds, hermit crabs, and deteriorating surfaces make it extremely difficult to keep the ramps clean. Turnup screens were used on all ground runups. Nevertheless, one engine was found to be FODed upon recovery at MCAS Iwakuni.

(8) On 24 July the first serial (6 F-4J's plus 2 spares) launched for MCAS Iwakuni. The spares returned unneeded. The flight to Iwakuni was uneventful. after the second refueling the C-9 accelerated to 470 - 475 KTS TAS and the F-4J's flew in formation with the C-9 to MCAS Iwakuni. For short legs (C-9 fuel is the constraint) this is a good procedure, especially for weather penetration. The second serial launched on 26 July, 15 seconds prior to AVANA time. The delay occurred as a result of a C-141 medevac flight from Wake Island that occurred during the launch window. It was only by "scrambling" the C-9 that the evolution avoided a 24 hour delay. The trip was routine except for weather. The 2nd set of refuelers readjusted to a north-south track to stay VMC. The receivers flew about one hour in IMC after the second refueling and circumvented several thunder-storms that were picked up on the F-4J radar. Recovery at MCAS Iwakuni was routine.

b. Recommendations

(1) That F-4 squadrons not carrier qualify prior to TRANSPAC deployments. Training build-up for carrier qualifications is extensive, hard on the radars and must be planned to occur at least 3 months prior to the TRANSPAC to avoid loss of training readiness in other areas. Further, historical data reveals a minimum of 10% loss in aircrews who don't "make the cut" at the carrier, which could result in short notice PCS orders for replacements. Carrier training ispproductive only if it is followed by a carrier deployment, other CRP is lost quickly.

(2) That two months be planned to prepare for a TRANSPAC. Squadron members were allowed a maximum of 20-23 days leave. No proceed time was authorized because MCAS Beaufort was the point of departure for the 12 months PCS. Six month TAD deployments will resolve much of this problem. However, for a month preparation KC-130 support must be readily available. In the case of VMFA-251; it was not because of Solid Shield and Agile IDEX.

(3) That the C-9 be the exclusive pathfinder support using the "leap frog" technique. Several crews in VMFA-251 have previous TRANSLANT experience using the KA-3D. While this aircraft is acceptable, it cannot compete with the outstanding navigation/communication/divert information instantly available from the C-9.

(4) That the KC-130 tankers and AST's have operable radar at all times. The KC-130 OR was invaluable in ensuring that refuelers and receivers rendezvoused.

(5) That the F-4J's "pass the observation position" in formation on the port side of the KC-130's (in starboard echelon) and proceed direct to their assigned hoses.

(6) After refueling, that all the F-4J's depart the stabilized position down and to the left simultaneously. This greatly expedites join up. Once clear, the flight leader requests permission from the RAC to commence a climb.

(7) That weather reports be updated frequently by the C-9. Arrange for "back door" real time weather to be passed to the receiver, to avoid a short notice IFR recovery. For example, the July weather at MCAS Kaneohe is a series of moving rain showers and can change several times in an hour.

(8) That an LSO be on station for all serial recoveries at MCAS Kaneohe. MCAS Kaneohe is a challenge to aircrews who have never landed there. The VMFA-212 LSO assisted the first serial recovery and was instrumental in preventing an incident.

(9) That a realistic departure plan from Honolulu Center be obtained in advance. Neither the F-4J's nor the C-9 were prepared for the altitude restrictions issued on L-Day.

(10) That chain arresting gear be installed at mid-field on Wake Island. Wake Island usually has a cross wind. A utility hydraulic failure would require landing with no nose gear steering, use of air brakes without directional control, and manual rudder control. The probability of keeping an F-4 on the runway for a normal roll out under these conditions is small.

(11) That extra sweeping of the Wake Island ramps, taxiways and runways be arranged during F-4 TRANSPAC evolutions.

(12) That intake screens be used for all ground turnups at Wake Island, VMFA-251 had multiple FOD walks during the stay at Wake Island and still FODed one engine.

(13) That a flight surgeon accompany an 8000 mile TRANSPAC. The psychological and physiological pressures and stresses are real.

(14) That 14 days be the normal TRANSPAC pace from MCAS Beaufort to MCAS Iwakuni. JETLAG alone is debilitating and would dictate a 3-4 day rest at each stopover.

4. LOGISTICS/MAINTENANCE

a. Discussion

(1) Following is a list of items considered essential for the composition of the enroute maintenance pack-up:

"A" STORES

NOMENCLATURE	PART NO.	NSN	QTY
T.C.B.	20537-4	2995-159-8730	1
BLC CHECK VALVE	CYLB-9870-2	4820-139-3388	1
R/H IMPLINGMENT START VALVE	26040014	2995-976-1424	1
L/H IMPLINGMENT START VALVE	26040013	2995-976-1425	1
P&D VALVE	8680842G2	2915-446-2817	1
PLUG A/B SPARK	516D686P7	2925-800-4685	1
SWITCH A/B IGNITION	874C224P4	5930-891-1676	1
TRANSMITTER, FUEL FLOW	9115-16C1A	6620-515-5206	1
R/H T.E. BLC VALVE	626T100-14	4810-00-763-1105	1
L/H T.E? BLC VALVE	626T100-13	4810-00-763-1104	1
BLC ROD	32-11578-21	3040-00-977-9311	2
R/H L.E. BLC VALVE	32-83229-304		1
L/H L.E. BLC VALVE	32-83229-303		1
ACCUMLATOR	1365-633498	1650-182-3342	1
MOISTER SEP	895377/33525	1650-350-0992	2
PART KIT RAT	1071-1/76301	1650-788-6422	2
VALVE SEQUENCE	7U7234/94641	4820-807-3631	2
ACTUATOR FLAP	32-695701/76301	1650-750-6862	2
VALVE RAT SEL	892713	4820-869-1900	1
MAIN SYS RELIEF	MC-1603-3501	1650-816-4488	1
CANOPY RELIEF	840392-05	1650-793-5837	1
CANOPY REG	LE1490-5	4820-816-5007	1
EMERG BRAKE VLV	891736/33525	1630-922-4700	1
ACCUMULATOR	1356-633402/92003	1650-899-6271	1
SPOIL ACT I.B.	32-69525-303	1650-953-3832	1
SPOIL ACT C.B.	32-69517-305	1650-075-0584	1
T/E FLAP ACT	7-3179	1650-962-8739	1
RUDDER ACT	36500-313A	6615-00-065-5954	1
NGS MOTOR	OMP2202-860020	1620-838-1795	1
NSG SERVO	76154/28528	5950-777-2533	1
NGS KIT	0821-1/76031	1620-928-0142	1
FWD CANOPY ACT	32-72132-303	1650-790-6885	1

ENCLOSURE (1)

NOMENCLATURE	PART NO	NSN	QTY
AFT CANOPY ACT	32-72136-303	1680-000-5494	1
TEMP CONT BOX	47654-3-1	1660-832-5273	1
CONT ASSY TEMP	47568-8-2	6685-115-9506	2
REGULATOR, CANOPY	140090-4	4820-816-4409	1
DISC RUPTURE	173142	6230-424-2081	2
EXT PWR RECIEPT	MS90362-1	5935-255-3375	2
GYRO SWITCH RATE	119538-01	6615-613-5476	1
AMPR RECTIFIER	MS17976-2	6130-00-910-6512	1
CP-624	17313-2A	6605-947-4123	2
AM-3049/ASN-39	18701-1A	6605-860-6006	2
SWITCH ASSY WAVE GUIDE	RAM858	1430-762-7179	2
FLUX VALVE	MS25396-1	6605-833-5087	2
NSG CONT BOX	A05A0047-1	1620-00-943-8749	1
CONT UNIT BLEED AIR DET	35007-3	1680-00-619-1610	1
SIM FUEL QTY	RG12D23		1
SENSOR LOW LEVEL	FG62A1	6680-221-5591	1
ACT RUDDER TRIM	R-584M7	1680-870-0495	1
ACT STAB TRIM	R144M39-2	1680-870-0496	1
LWR UHF ANT	DCM7/8A	9N5821-00-727-0747	1
HSI	522-4706-001	2RG6610-00-975-1699FZ	1
ADF ANT	AS-909/ARA-48	5895-755-4529	1
UHF COAX SW	32-87-019-301		1
INDICATOR MACH F/C	MN851L	2RH6610-00-869-5874BF	1
SWITCH UHF	421101	9N5930-00-815-9907	1
ANTENNA UHF UPPER	6583-2	9F5825-00-985-3943	1
TACAN C/B	01A215158	1RF5826-00-895-954HF	1
ADAPTER CAC	1425443-01	2RG6615-00-906-6715MF	2
SENSOR ABN 70 (PENDULUM	141860-01-01	2RG6610-00-913-6987MF	2
INDICATOR FUEL QTY	J0132B8	2RH5680-00-927-4025BF	2
INDICATOR ALTITUDE	MS25450-1	2RH6610-00-953-5951	2
TRANSMITTER AOA	SLZ9170B	2RQ6610-00-945-3112BF	3
ANTENNA LWR TACAN	2282-1	9N5985-00-958-2900	2
UHF CHANNEL INDICATOR	ID-1311/ASQ	2RH5895-00-919-0413BF	2
INDICATOR HORIZ	522-4706-001	2RG6610-00-975-1699FZ	2
ADAPTER AJB-7 PWR SUPPLY	142425-01-01	2RG6615-00-982-5301MF	2
GYRO DISPLACEMENT AJB-7	SBE-8/A24G-1A	2RG6615-00-994-215MF	2
INDICATOR RPM	8DJ812AA2	2RH6620-00-987-9242FZ	2
AUX REC	R-1286/ARA-69	2RH5821-00-999-4590FZ	2
TRANSDUCER FORCE	687D96061	2RH6615-00-590-5172	2
ACCELEROMETER LATERAL	197028203	2RH6615-00-600-0969BF	2
IFF CONT BOX	C-6280P/APX	1RD5895-00-782-0844AZ	2
TACAN UPPER ANTENNA	DAN-129	9N5985-00-768-5038	1
ELEMENT SENSING F/W	35590-0-765	9I1680-00-783-1649	2
ELEMENT SENSING F/W	35620-0-765	9I1680-00-783-1651	2
CONTROL GEN (VRSP)	21B30-3A	2RG6610-00-902-3519BF	2
ELEMENT SENSING F/W	35560-0-765	9I6340-00-790-7192	2
GYRO YAW RATE	1970325G2	2RH6615-00-794-628BF	1
GYRO PITCH RATE	1970326G2	2RH6615-00-796-1466BF	1
GYRO ROLL RATE	197C324G3	2RH6615-00-796-1467BF	1
POWER MONITOR	577R553H01	1R1430-00-861-3125AK	1
SA1	M817249	2RH6610-00-866-4348F2	2
INDICATOR A/S	24482-1-1	2RH6610-00-862-5501BF	2

ENCLOSURE (1)

NOMENCLATURE	PART NO	NSN	QTY
ELEMENT SENSING OVHT	35530-0-1050	9I6340-00-874-1850	2
INDICATOR AOA	AFC-506-9421	2RH6610-00-816-4998HF	2
INDICATOR FUEL FLOW	27006B16A4A1	9I6620-00-880-2091	2
INDICATOR HYD PRESS	MS17996-1	9G6685-00-880-7726	2
INDICATOR OIL PRESS	MS17996-2	9G6685-00-880-7728	2
ALTIMETER SERVO	AAU-19A	8RG6610-00-887-206AZ	2
INDICATOR FUEL PRESS	MS17996-9	9G6695-00-880-7727	2
A/P COUPLER	231E57161	6615-00-877-0996	2
CABIN TEMP CONT	47654-5-1	1660-00-134-5198	1
HSI AMP	522-1394-003	6610-00-617-0426	1
TEMP AMP CONTROL	7000M85P01	2915-00-133-8007	1
OIL PRESS XMTR	7724-30C5-1	6620-00-789-1638	1
AIR COMPRESSOR	893272	4310-00-937-1374	2
TACK GENERATOR	AG-34	6620-00-585-1503	1
CONT UNIT CAUTION	A3431B	2RH6340-00-065-5822BF	2
COMPUTOR ASN-70	144950-01-01	2RG6610-00-080-8957	2
INDICATOR BEARING (BDHI)	ID-6630-U	2RQ5826-00-089-7912FZ	2
INDICATOR PNEU PRESS	6500A23A1R1	1R6685-00-336-3072MF	

POOL ITEMS

NOMENCLATURE	POOL NO	P/N	QTY
CSD	0540	695146F	3 married
GENERATOR	1190	28B187-4A	3 marrie
CADC	P630	42400-211-1	3
A/P AMP	1120	231E581G2	2
ADI AMP	P510	139327-01-01	2
BRAKE ASSY	0790	AA320296-1	4
UHF RADIO RT793A	P650	RT-793A ASQ	5
UHF CONTROL BOX	P690	C6684ASQ/522-3906-001	2
IFF	P540	KY532A/ASQ/D	4
TACAN RT799/ARN-86	P700	01A215155-1	6
FC ICS	P610	LS-4608/AIC	2
RC ICS	P620	LS-4598/AIC	2
F-4 MAIN		1630-179-4003	8
F-4 NOSE		1630-493-4976	8

(2) Though the TRANSPAC LOI addressed the pre-positioning of contingency engines, it did not make provisions for the positioning of an engine for the TRANSCONUS movement. Through coordination with the 3rd MAW AMO an engine was designated and pre-positioned at MCAS Yuma.

(3) Liaison was established with the enroute supply points to obtain a block of document numbers for immediate parts ordering upon arrival. This allowed the EST to go "in-work" more expeditiously.

(4) The enroute maintenance effort was divided into EST teams #1 and #2, the smaller of the two, was designed to provide the following services:

(a) Launch aircraft at the next stopover.

(b) Service aircraft.

(c) Collect aircraft discrepancies and issue JCN's.

(d) Order parts.

(e) Perform maintenance within their capability.

EST #2, the follow-up team, was structured to:

(a) Augment EST #1 in the maintenance effort.

(b) Launch aircraft.

(c) Act as the contingency maintenance team in case of aircraft diverts.

(5) The EST pack-up was best employed when split between both EST's. Upon departing MCAS Beaufort, the entire pack-up remained with EST #2. EST #1 could perform little or no maintenance on aircraft arriving at MCAS Yuma. Subsequent to MCAS Yuma, the bulk of the pool items were sent ahead with EST #1. EST #2 kept one item each from the pool and the entire "A" stores pack-up. This procedure paid off when two aircraft diverted into Johnston Island. EST #2 was able to follow the divert aircraft while EST #1 was established and performing maintenance on aircraft arriving at Wake Island.

(6) Two items that caused problems concerned oil bowsers and radar test equipment. There was only one oil bowser available. It is necessary that both EST's have one, the lead EST needs one to service arriving aircraft while the follow-on EST needs one to cover possible divert aircraft. Since avionics test equipment was not included in the maintenance pack-up, liaison was made at the Group level to ensure the availability of test equipment at MCAS Yuma and MCAS Kaneohe. Though the avionics gear was available to the squadron, it was on a routine basis because it was the same equipment the home-based squadrons were using. While this is appropriate during normal training deployments it does not meet the requirements of a TRANSPAC squadron that has to meet set launch schedules.

(7) As regards enroute base support for the TRANSPAC, the only significant problem encountered occurred at MCAS Kaneohe and concerned transportation. The squadron S-4 paid a visit to the station motor transport officer on July 15 and gave him a written schedule of events and vehicles required along with show times. On 16 July, the bus that was to transport the EST from the barracks to the hangar was incorrectly sent to the hangar causing the EST to seek any vehicles they could to reach the hangar. The forklift to load the first KC-130 was sent to the wrong hangar causing further delays. On 17 July, the bus

required to transport aircrews from the BOQ to the flight line never showed up. When motor transport was contacted they replied they had a bus, but no driver. On 18 July, the bus was late because it was sent to the hangar instead of the BOQ as requested.

(8) Three items were lost during the TRANSPAC evolution. A maintenance cart and an engine stand were left behind during the main body movement. One TRANSPAC spare F-4J pilot lost all his flight gear aboard the trailing EST aircraft. Procedures to exchange the IMRL items were completed. A search for the flight gear has terminated with negative results. New gear has been ordered.

(9) Personnel traveling aboard the EST aircraft were not informed about their travel schedule as to length of flights, potential stops, and expected delay times. Passengers had to obtain their own water, and one EST aircraft had full hot turned on to maintain pressurization.

b. Recommendation

(1) That an engine be pre-positioned at MCAS Yuma for MCAS Beaufort based squadrons.

(2) That advance liaison be initiated to supply points to obtain a block of document numbers to reduce supply delay time at enroute stops.

(3) That the EST supply pack-up be split in the same fashion as was done by this squadron. This will cover all eventualities.

(4) That two oil bowsers be taken and that priority on avionics test equipment along the way be established in advance.

(5) That specific motor transport requirements be submitted in writing at enroute bases and that daily follow-ups be made to ensure requirements are met.

(6) That EST maintenance personnel be briefed by the EST aircraft crew on the details of each EST flight and any changes that occur subsequently.

(7) That EST aircraft have all facilities and comforts operational for the TRANSPAC.

(8) That both the lead and trail EST's be provided with the following items of equipment: pre-oilers, MRC decks, stand off guages, two sets of securing gear, axle jacks, chocks, AOA probe covers, pitot tube covers, intake covers and at least two sets of intake screens. Pack enough oil and tires for at least one week of operations.

(9) That both EST's carry MAF's, SAF's and pass down logs.

(10) That a "Y" fitting for starting F-4 aircraft from USAF starting units be available at Wake Island.

(11) That aircrews man aircraft 60 minutes prior to takeoff time. This was done by VMFA-251 throughout the TRANSPAC and resulted in zero delays.

(12) That massing of GSE gear be prepositioned no later than 4 hours prior to fly away launches, inclusive of public works representatives to support the wells units if a problem should occur, and in sufficient depth to provide adequate redundancy in case of equipment failure. This procedure was followed religously. The result was that even when several items of equipment failed during a launch evolution (e.g. two 105's, a tractor, etc) all launches were executed on the minute.

5. SUMMARY OF FLIGHT HOUR REPORT

BASE	DATE	FLIGHT TIME/NO ACFT
MCAS Beaufort-MCAS Yuma	8 July 1977	48.0 (12 ACFT)
MCAS Yuma-MCAS Kaneohe	10 July 1977	42.8 (7 ACFT)
	10 July 1977	1.4 (Spare ACFT)
	11 July 1977	29.6 (5 ACFT)
MCAS Kaneohe	12-16 July 1977	9.6 (6 ACFT)
MCAS Kaneohe-Wake Island	17 July 1977	30.3 (6 ACFT)
	17 July 1977	3.0 (Spare ACFT)
	18 July 1977	20.0 (4 ACFT
MCAS Kaneohe-Johnston Island	18 July 1977	4.0 (2 ACFT divert)
Johnston Island-Wake Island	20 July 1977	6.6 (2 ACFT)
Wake Island-MCAS Iwakuni	24 July 1977	30.0 (6 ACFT)
	24 July 1977	2.2 (Spare ACFT)
	26 July 1977	30.0 (6 ACFT)
TOTAL		257.5 HOURS

6. SUMMARY COST REPORT

a. OFC 01 - $103,000.00 at $419.41 per hour.

b. OFC 50 - $103,000.00 at $400.00 per hour.

c. OFC 21/03 - CMC Funded.

7. REMARKS

a. Discussion

(1) The movement of VMFA-251 from MCAS Beaufort to MCAS Iwakuni was on schedule with 12 F-4J's landing at destination as planned. The outstanding leadership exhibited by LtCol Ray BRU in managing the evolution directly contributed to this highly successful and unusual move of 12 F-4J's over 8000 miles. The aircraft were sound from intense preparation and the 10 man EST maintained them at 74% FSC during July. Each F-4 aircrew was thoroughly prepared, knowledgeable of every detail, and ready to assume the lead at any point along the route, if required. The C-9 crews provided instand and specific information throughout the flights. The KC-130 crews ran excellent rendezvous, were on track, provided all fuel required, and exhibited maximum flexbiliity during refueling evolutions. In summary, it was a professional display of sound airmanship by all hands, and was a tribute to the outstanding maintenance personnel by the 200 Marines at MCAS Beaufort, and the EST while enroute. Inclusive of the suggestions contained herein, it is recommended that future TRANSPAC missions utilize the proven methods of Key Grove.

Readiness Exercise Alligator AAR

1. Embark and Mount-Out Process

1300: Squadron is alerted to "Exercise Alligator". Key Personnel meet with representatives from MAG-15 concerning requirements in conjunction with "Exercise Alligator".

1500: Squadron Dept Head Meeting: All dept heads were informed at this time that the Squadron was involved in the exercise. The 0800 pack-up deadline was passed and related matters were discussed.

1600: First Phase of Mount Out Begins: Shops start to pack up all items not necessary to flight operations and on going Aircraft Maintenance.

2030: Dept Head meeting is held to discuss further developments and current squadron status.

2100: All personnel needing shots were directed to the Medical area to receive shots.

2200: Second Phase of Mount Out Begins: All boxes packed are now taken by forklift to Squadron staging area inside of hanger. Hanger area utilized due to inclement weather.

2330: 782 gear issued, weapons are held for squadron personnel in a secure container.

0300: All boxes are packed and loaded on 463-L pallets and awaiting delivery to Group Staging Area.

0630: Boxes needed for flight operations and aircraft maintenance are loaded and ready to be staged.

0830: All pallets and conex boxes are delivered to Group Staging Area.

0900: Squadron formation held to inform all hands of progress of exercise and present status of Squadron.

1030: All hands formation held to greet CG, FMFPac.

1315: Formation for inspection of officers, troops and embark boxes associated with mount-out process.

1530: Squadron starts to unpack and put shops in working order.

1930: Squadron unpacked and operations normal.

ENCLOSURE (1)

2. Problems of an Administrative Nature.

a. Review and updating of Shot Records

b. Proper manifesting of people to aircraft.

c. Current "Alpha" Roster that indicates status of all personnel in the squadron.

d. Coordinating a Maintenance pack-up and continuing flight operations.

e. Completion of a working flight schedule without frag to indicate type of sorties desired.

3. All coordination of a necessary nature was passed in Dept Head meetings. S-4 was responsible for passing and coordinating information concerning the pack-up. Information coordinated was gear to be packed, where it was to be staged, when it was to be staged and instructions for the embark boxes and packing lists. The Squadron S-4 worked closely in relation with the Group S-4 in receiving this information.

a. Maintenance coordinated with Squadron S-4 in relating when boxes were packed and staged.

b. Requirements for the exercise were passed from Shop heads to Shop NCOIC's and disseminated to the troops.

c. Group Ordnance worked in conjunction with Squadron Ordnance to secure "SATS" tent.

d. Squadron S-3 coordinated with Group to acquire necessary NBC gear.

4. No formal message traffic was sent from this squadron concerning "Exercise Alligator". One memo was sent from Squadron S-4 to Group S-4 requesting additional 463-L pallets.

5. See enclosure for procedures determined from the exercise. Item 1 contains a schedule of the different phases of the mount-out.

6. The problem areas are as follows:

a. Areas were not designated for each shop to stage embark. Shops did not know where their gear was when palletized, this hindered finding of gear and slowed the debark process.

b. There was no "hot" box available for last minute items necessary to the administrative process of the squadron, i.e- packing list and SRB's.

c. Many shops did not have Embark Combat load plans.

ENCLOSURE (1)

d. There was no standard plan for issue of 782 gear and weapons. The acquistion and issue of 782 gear and weapons was very involved and took more time than necessary. The big reason for this was the constant change of procedure handed down to the squadron. The kinds and amounts of gear to be issued were changed numerous times. Many hours were wasted in determining how to pass out weapons. There were no containers provided for squadron to keep weapons in. Boxes were provided to transport them to the Squadron, but these had to be returned as directed.

e. It was not clear what was expected of the pack-up, whether it was to be a complete squadron pack-up or a combat load pack-up. The decision was made in-house to provide a complete pack-up.

f. Although much coordination existed between shops in the squadron, certain important in-squadon events happened which greatly affected the embark process and were not reported to S-4/Embark. The Ordnance Shop requested "SATS" tents without advising S-4 as to when and where they wanted them. S-3 requested "NBC" gear and S-4 was not advised.

g. Many shops did not designate perishable or changed paper work from one box to another without changing the packing lists. Some minor damage resulted from the rain.

h. Maintenance found that some test equipment was not available. As this exercise was to determine the combat readiness of the squadron; it is hard to determine the readiness of an aircraft without the proper equipment.

i. Very serious FOD and vehicle collision problems existed on the MAG-15 line. With the complexity of the mount-out program, there were many vehicles on the line at all times. There were many articles of loose gear which added to the FOD problem. The presence of many embark boxes, some deteriorating compounded the FOD problem.

7. The following recommendations have been incorporated in VMFA-251's embark plan and are suggested for MAG-15 use.

a. That MAG-15 draw up a specific staging plan with alternate areas for inclement weather.

b. That a "hot" box be supplied by the S-4 for all last minute items from each shop, and that the list of these items be supplied by each shop.

c. That at the time of an actual squadron pack-up, shop Embark NCO's report directly to the S-4 for guidelines and accompany their pack-up until staged.

ENCLOSURE (1)

d. That a total outlay of 782 gear be issued to the squadron. This gear would be held by the Squadron Material Officer.

e. That weapons be held at the armory in a lot, assigned to a responsible officer of each squadron and available for a quick and orderly pick-up in containers which are secure and able to stay with the weapons till they are returned.

f. That the armory devise a plan for orderly and expedient dispersal. Weapons containers and responsible squadron officers will expedite the pack-up.

g. That orders to move, whether it be an exercise or actual condition, clearly specify whether it is a whole squadron pack-up or a combat move. The security measures surrounding this type of exercise is appreciated, but certain basic information, as is mentioned above, is vital to the embark process in the estimate of weight, cube and time involved.

h. That checklists be provided from the S-4/Embark which delineates the specific moves to take in order to insure positive coordination and communication between shops and the S-4. This checklist should stress the importance of correct and up to date packing lists, and should highlight perishable items. Boxes carrying perishable goods have been weather proofed.

i. That the applicable Group shops either hold in stock or provide the squadron with all test gear rated by the squadron. An example of this is MSTS and AWM 52A avionics test gear, which was not available to the squadron for positive testing of missilefiring stations, essential to a combat ready aircraft.

j. That a FOD free lane be established on flight lines during exercises. This would provide a FOD free area for turnup, starting, and taxing of aircraft. This lane must be kept clear of all embark material and vehicles.

ENCLOSURE (1)

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Operation Plan 3-77 (Operation COPE JADE CHARLIE/COPE STRIKE MIKE)

Ref (a) MAG-15 LOI (160515Z Aug 77)
(b) AFK Operation Order 76-3 Ex COPE STRIKE (1 Nov 76)
(c) AFK 314 AD, Operation Order 77-12 Ex COPE JADE (1 Feb 77)

TIME ZONE: I

Task Organization:

VMFA-251 LtCol ALLINDER JR.

1. SITUATION

a. Enemy Forces. NONE

b. Friendly Forces.

(1) See Reference (b) para 1b for Non-USMC friendly forces.

(2) 1st Marine Aircraft Wing provides planning, liaison, logistical and air refueling support for aircraft staging out of MCAS Iwakuni.

(3) Marine Aircraft Group 15 provides liaison and logistical support for aircraft staging out of MCAS Iwakuni.

(4) Marine Aerial Refueling/Transport Squadron 152 provides aerial refueling support with pre and post strike refueling tracks.

(5) VMFP-3 DET ONE MCAS Iwakuni, provides RF-4B aircraft for PHOTO-RECON and FAKER missions.

(6) VMAQ-2 DET B, MCAS Iwakuni, provides EA-6A aircraft for ECM/FAKER missions.

(7) VMFA-251 provides F-4J aircraft for CAS, FAKER, and PHOTO-RECON escort missions.

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TAB 4

2. MISSION

VMFA-251 will take part in COPE JADE exercise as FAKER aircraft escort, simulating penetration of South Korean airspace by hostile aircraft. VMFA-251 will participate in COPE STRIKE exercise, providing CAS with practice and live ordnance. The two exercises occur simultaneously and VMFA-251 will utilize the same sorties to support both exercises. The combined exercise begins 23 Aug 77 and terminates 26 Aug 77.

3. EXECUTION

a. General. As directed by references (a), (b) and (c), VMFA-251 will operate out of MCAS Iwakuni, Japan during the period 23 Aug to 26 Aug 1977, in support of COPE JADE/COPE STRIKE, in conjunction with photo-recon aircraft, ECM aircraft and aerial refuelers.

b. VMFA-251

(1) Provide operational planning and principal liaison between all units concerned.

(2) Provide air operations as directed by references (a), (b) and (c) as delineated in Annex A.

c. VMGR-152

Provide aerial refueling support as required by references (a), (b) and (c) to support VMFA-251 and VMFR-3 DET ONE sorties.

d. VMFR-3 DET ONE

Provide RF-4B aircraft for FAKER/RECON missions as directed by references (a), (b) and (c).

e. VMAQ-2 DET BRAVO

Provide EA-6A aircraft for ECM/FAKER missions as directed by references (a), (b) and (c).

f. Coordinating Instructions

(1) The code name for this exercise is COPE JADE CHARLIE/ COPE STRIKE MIKE. The use of this code name is unclassified when used in relation to the exercise alone.

(2) D-day, H-hour is 230700 1 Aug 77.

(3) See annex B for Intelligence information concerning COPE JADE/COPE STRIKE air operations.

4. ADMINISTRATIVE AND LOGISTICS

After action reports will be submitted to MAG-15 S-3 NLT 31 Aug 77. Include the following:

(1) Exercise sorties/hours flown.
(2) Exercise flight operating costs.
(3) Training accomplished (Number of X's and training codes).
(4) Command and control problems.
(5) A brief narrative summary of main events with conclusions/recommendations for squadron involvement in future CJ/CS exercises.
(6) Problem areas.

5. COMMAND AND SIGNAL

a. Signal. NONE

b. Command. The OCE for the exercise is MAG-15 S-3, LtCol H. H. Clark.

M. W. Allinder Jr.

M. W. ALLINDER JR.
Lieutenant Colonel, U.S. Marine Corps
Commanding

ANNEXES

A. Air Operations
B. Intelligence

DISTRIBUTION: Distribution A plus 1st MAW
MAG 15
VMFR-3 DET ONE
VMAQ-2 DET BRAVO
VMGR-152

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Annex A (Air Operations) to Operations Plan 3-77

Ref: (a) MAG-15 LOI (160515Z Aug 77)
(b) AFK Operation Order 76-3 Ex COPE STRIKE (1 Nov 76)
(c) AFK 314 AD, Operation Order 77-12 Ex COPE JADE (1 Feb 77)

Time Zone: I

1. SITUATION:

a. Enemy Forces. NONE

b. Friendly Forces. See paragraph 1b of the basic order.

2. MISSION

VMFA-251 provides F-4J aircraft for FAKER escort and CAS missions in support of COPE JADE CHARLIE/COPE STRIKE MIKE.

3. EXECUTION

a. Concept of Operations. On 23 Aug 77, F-4J aircraft will commence air operations as directed by references (a), (b) and (c) and will terminate air operations on 26 Aug 77.

b. VMFA-251

(1) 23 August 1977. Two sections of F-4J aircraft, armed with 6 MK-76 practice bombs each, will depart MCAS, Iwakuni, one section in the morning and one in the afternoon. The missions will be identical, except for takeoff and target times, and will consist of aerial refueling, FAKER escort and CAS with practice ordnance on Nightmare Range (RK/P-518). The route for both sections is contained in Appendix 1. Mission numbers and TOT's are contained in Appendix 3. Aircrews are listed in Appendix 2.

(2) 24 August 1977. Two sections of F-4J aircraft, armed with 4 MK-77 each, will depart MCAS, Iwakuni, one in the morning and one in the afternoon. The missions will be identical, except for takeoff and target times, and will consist of aerial refueling and CAS with live ordnance on Nightmare Range (RK/P-518). The route and fuel figures for both sections are contained in Appendix 1. Mission numbers and TOT's are contained in Appendix 3. Aircrew are listed in Appendix 2.

(3) 25 August 1977. Two sections of F-4J aircraft, armed with 1 captive AIM-9 (Inert) each, will depart MCAS, Iwakuni, one in the morning and one in the afternoon. The missions will be identical except for takeoff and target times, and will consist of aerial refueling and FAKER escort to the RK/P-518 area of South Korea. The route and fuel figures for both sections are contained in Appendix 1. Mission numbers and TOT's are contained in Appendix 3. Crews are as listed in Appendix 2.

(4) 26 August 1977. Two sections of F-4J aircraft, armed with 6 MK-76 practice bombs each, depart MCAS Iwakuni, one in the morning and one in the afternoon. The sections will fly identical missions, except for takeoff and target times, and will consist of aerial refueling and CAS with practice ordnance on Rodriguez Range. The route and fuel figures for both sections are contained in Appendix 1. Mission numbers and TOT's are contained in Appendix 3. Crews are listed in Appendix 2.

c. Coordinating Instructions

(1) VMGR-152. Provide 1 KC-130 in morning and 1 KC-130 in afternoon in RK/P area during 23 August-26 August 1977. Each tanker will be refueling 2 F-4J's and 1 RF-4B on prestrike and 2 F-4J's on post strike. Time on station will be approximately 2+00 (including 0+30 prior to first ARCP).

(2) VMFP-3 DET ONE. Provide 1 RF-4B in morning and 1 RF-4B in afternoon during period 23 August-25 August 1977 for FAKER/PHOTO-RECON missions as fragged in RK/P-518 area.

(3) VMAQ-2 DET BRAVO. Provide 1 EA-6A in morning and 1 EA-6A in afternoon during period 23 August-25 August 1977 for FAKER/ECM missions. Escort will not be required or provided.

d. Divert Airfields. Divert data is contained in Appendix 3.

M. W. Allinder, Jr.

M. W. ALLINDER JR.
Lieutenant Colonel U.S. Marine Corps
Commanding

Appendices:
1.
1. Flight Routes and Fuel Figures
2. Flight Crews
3. Frag O 190034Z Aug 77 (NOTAL)
4. Divert Airfield Data

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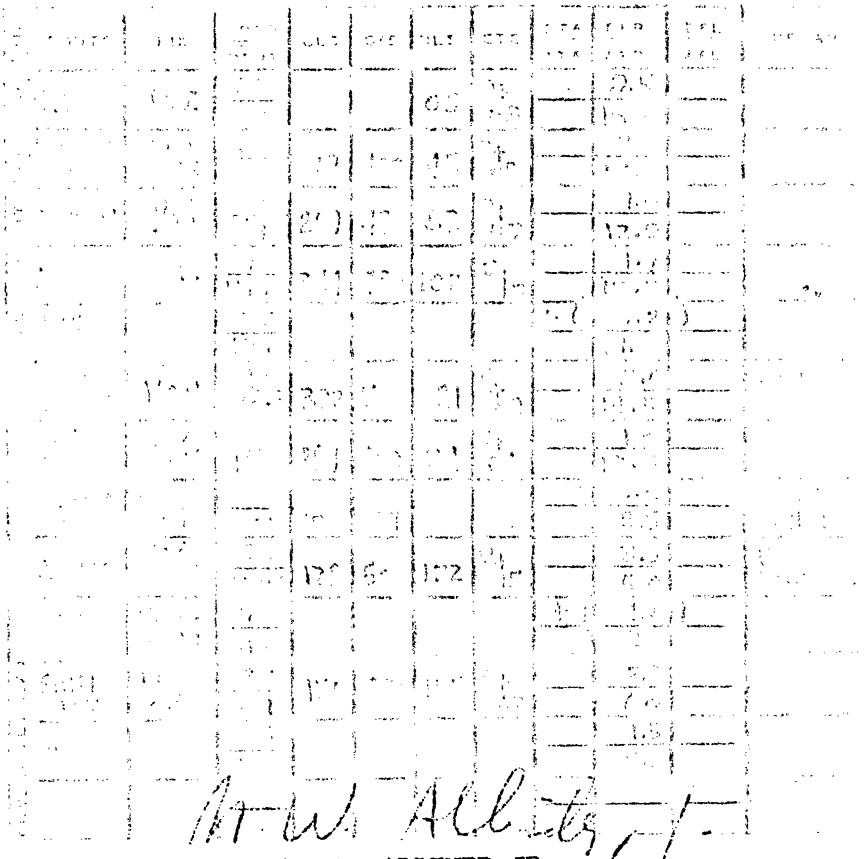
Appendix 1 (Flight Routes and Fuel Figures) to Annex A (Air Operations) of Operations Plan 3-77

TIME ZONE: I

1. GENERAL. The following jet logs depict routes and fuel figures for missions scheduled 23 August-25 August 1977, computed under no-wind conditions.

(1) MK-76 and MK-77 CAS/FAKER escort 23 and 24 August 77

(2) FAKER escort, 25 August 77. Captive AIM-9 (INERT) only.



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Lieutenand Colonel, U.S. Marine Corps
Commanding

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Appendix 2 (Flight Crews) to Annex A (Air Operations) to Operation Plan 3-77.

1. Aircrew Assignments

23-24 August 1977--AM Sorties
Lt Col Allinder/Maj Hay
Lt Marthiljchmi/Lt Foley
PM Sorties
Capt Wagner/Lt Hill
Capt Adcock/Lt Schalk

25 August 1977--AM Sorties
Maj Caddock/WO-4 Massey
Capt Pomroy/Lt Elek
PM Sorties
Capt Pospischil/Lt Romaneczyk
Lt Cuddy/Capt Fuchs

26 Aug 77--PM

M. W. Allinder, Jr.

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Appendix 3 (Divert Airfields) to Annex A (Air Operations) to Operations Plan 2-77.

TIME ZONE: I

1. The following is a list of divert airfields. Pertinent details extracted from the IFR Supplement.

Osan AB 37-05°N 127-02°E GMT+9
RWY Length 9000'
RWY 09 MA-1A (MOD) BAK-12(B) BAK-13(B) _____
(50° OVRN) (1350') (2700')
_____ BAK-13(B) BAK-12(B) MA-1A (MOD) RWY 27
(2700') (1350') (50° OVRN)

Remarks: Aircraft with hung or unsafe ordnance, declare an emergency.

Communications:
App Con 327.3
Tower 315.8 236.6
Gnd Cont 308.6
Dep Con 234.3
App Con 266.3
Gnd Post 349.4
Tacan CSN CH 94

TAEGU 35 53'N 128 40°E GMT-9

RWY Length 9000'
RWY 13 MA-1A MOD BAK-12(B) _____ BAK 12(B) MA-1A RWY 31
(150° OVRN) (1314') (1700') (150° OVRN)

Remarks: Jet traffic - left traffic at 1700'

Communications:
App Con 340.3 267.6
Tower 365.0
Gnd Cont 275.8
Tacan TAG CH 125

KANGNUNG 37° 45 N 128 57°E GMT+9
RWY Length 8600'
RWY 07 MA-1A _____ MA-1A RWY 25
(700' OVRN) (500' OVRN)

Remarks: Cliff at end of OVRN RW 25. Right traffic RW07 and left traffic RW 25. Pattern altitude 1600'.

A-4-1

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Communications
App. Con. 382.1
Tower 334.9 236.6
Gnd Cont 275.8
Tacan KAM CH 48

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Commanding

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Annex B (Intelligence) to Operation Plan 3-77

Ref: (a) MAG-15 LOI (160515Z Aug 77)
(b) AFK Operation Order 76-3 Ex COPE STRIKE (1 Nov 76)
(c) AFK 314 AD, Operation Order 77-12, Ex COPE JADE (1 Feb 77)

TIME ZONE: I

1. SITUATION

a. Enemy Forces. NONE

b. Friendly Forces. See reference (b) Appendix 4 to Annex C for location of friendly forces and safety lines.

2. MILITARY SIGHTINGS

Report sightings of any military vessels and/or aircraft as soon as practicable to the S-2 Officer, either written or verbally.

3. MISCELLANEOUS

Kneeboard cards carrying instructions for reporting MIJI and RHAW indications are provided by S-2, and will be distributed prior to each mission.

M. W. Ailliner Jr.

M. W. AILLINER JR.
Lieutenant Colonel, U.S. Marine Corps
Commanding

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UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15
1st Marine Aircraft Wing, FMFPac
FPO San Francisco 96602

3:JRC:nl
3500
2 Sept 77

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From: Commanding Officer
To: Commanding Officer, Marine Aircraft Group 15

Subj: COPE STRIKE MIKE/COPE JADE CHARLIE, After Action Report

Ref: (a) MAG-15 LOI dtg 160515Z Aug 77

1. Enclosure (1) submitted in accordance with reference (a).

M. W. ALLINDER JR.

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TAB 5

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Enclosure (1) to After Action Report, COPE STRIKE MIKE/ZULU and COPE JADE CHARLIE

1. Exercise Sorties - 9
   Exercise Hours flown - 24.4

2. Exercise Operating Costs - $594/hr ; Total $14,493.60

3. Training Accomplished
   X's - 20 S-1/16 Ref. X's
   Training Codes - 168,169,191

4. Command and Control Problems

a. The primary problem encountered was lack of pre-strike information of the targets. In particular, the location of friendly troops, helicopters in the areas and the presence of simultaneous artillery fire on the target necessitated a drastic change in the briefed mission and could have resulted in confusion over the actual point of ordnance delivery.

b. A more timely distribution of the AFK FRAG message upon its receipt by MAG-15 would have eliminated confusion during mission planning. A delay of 24 hours in the delivery of a classified, priority message from the message center is unacceptable.

c. Initial request for two KC-130 tankers daily for the period 23-25 August was reduced to one tanker per day by the 1stMAW ATCO. This caused a deviation of major proportions in the refueling procedures and caused the recovery of one mission into Osan AB because no tanker was available. The MAG-15 OCE should review all changes to ensure the mission can be accomplished. Subsequent tanker support for 26 August was sufficient.

5. The following is a summary of the main events of the combined exercise and accompanying reccomendations for squadron participation in future COPE STRIKE/COPE JADE exercises.

a. 23 August 77, AM. Msn #2505, Pokey 21, of section of 2 F-4J aircraft, escorted an RF-4B on a FAKER mission into the area south of P-518 in Korea. After dropping the RF-4B off to complete the photo portion of his mission. the F4J aircraft proceeded to NIGHTMARE Range and delivered 6 MK-76 practice bombs each. The F4J's then departed the area on a FAKER mission and rendezvoused with the RF-4B on the tankers. Pre and post-strike refueling was accomplished by all aircraft.

RECOMMENDATIONS:

1. That the number of frequency changes once contact is made with the FAC be minimized.

2. That "real world" tactics be used to reflect real-life situations in a combat environment. i.e. low level pop-up tactics, target briefing prior to ingress to the target area. low level agress, etc.

b. 23 August 77. PM, Msn #2509 Pokey 31, 2 F4J aircraft were briefed to perform the same basic mission as the AM flight; however, due to aircraft problems, the #2 F4J ground aborted and the RF-4B air aborted. Pokey 31 continued the mission, flying inbound as FAKER aircraft, proceeded to NIGHTMARE Range, and recovered at Osan AB. Ordnance was not dropped because of failure of FAC (Apollo 13) to provide "Cleared Hot" call to fighter. The aircraft was forced to recover at Osan because the single KC-130 tanker was unable to meet the short turn-around time for PM refueling (see para 4(c) above).

RECOMMENDATIONS:

1. That sufficient tanker support be ensured for future operations.

2. That FAC transmit "Cleared Hot" on each pass at the target, as required.

c. 24 August 77. Air missions cancelled due to adverse weather and tailwinds at MCAS Iwakuni.

RECOMMENDATIONS:

1. That weather guidelines established in AFK OpOrders be reiterated in MAG-15 LOI or ammended as desired by MAG-15. Recommend 1000/3 for JOI for live ordnance.

d. 25 August 77. AM, 2 F4J aircraft escorted one RF-4B as FAKER flight south of P-518 area, then as photo/recon escort into P-518 and finally as FAKER flight on egress to tanker. Pre - and post-strike refueling was utilized by all aircraft.

RECOMMENDATIONS:

1. That liaison be established with 314th AD, Osan AB, Korea to allow VMFA aircraft to engage in ACM while acting as FAKER aircraft

2. That FAKER operations, wherever possible, be flown by aircraft configured for ACM only.

e. 26 August 77. PM, Pokey 11, Msn #1801 and Pokey 21, Msn #1803, 2 sections of F4J's, proceeded to RODRIGUEZ Range in P-518 area of Korea and delivered MK-76 ordnance. Target times as fragged were 15 minutes apart and pre-and post-strike refueling was utilized by all aircraft. Upon arrival it was determined that 30° dive would be required instead of 10° dive as planned due to simultaneous artillery fire on the target and a vertical insert by Army choppers. A 2500' recovery altitude was imposed by the FAC to avoid the incoming artillery.

RECOMMENDATIONS:

1. That various target contingencies be prebriefed by the controlling agencies to eliminate last minute confusion in target area.

2. That GCI effect tanker/fighter rendezvous.

3. That high threat tactics be used around target areas.

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Operation Plan 4-77 (Operation COPE THUNDER, XI)

Ref: (a) MAG-15 190026Z Aug 77 (NOL)
(b) COMUSTDC 150203Z Aug 77 (C)
(c) Cope Thunder XI (General Planning Instruction
(d) CG First MAW 220146Z Aug 77

TIME ZONE: Z

Task Organization:

VMFA-251 DET ALPHA Maj CONNER

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces

(1) Marine Aircraft Group 15 provide planning and OCE for exercise.

(2) Headquarters and Maintenance Squadron 15 provides IMA support for exercise.

(3) Marine Aerial Refueling/Transport Squadron 152 provide aerial refueling support during flight ferry and exercise.

(4) Clark AFB provide base facilities during exercise.

(5) Military Airlift Command provides airlift support from MCAS Iwakuni to Clark AFB.

(6) Marine Fighter Attack Squadron 251 provides 5 aircraft and OMA personnel to support the exercise.

(7) Reference (a) indicates additional USMC and non-USMC units participating in the exercise.

2. MISSION

VMFA-251 Det A flight ferries to Clark AFB and participate in Cope Thunder XI from 10 Sep 1977 to 25 Sep 77.

3. EXECUTION

a. General. As directed by reference (a), VMFA-251 Det Alpha will deploy with 5 aircraft to Clark AFB to participate in Cope Thunder XI. Enroute to Clark, Det Alpha will perform IMFTS missions as directed by reference (b).

b. Marine Aircraft Group 15

(1) Provides coordinated planning and liaison for all USMC participants in the exercise.

(2) Provides OIC for the exercise.

(3) Submits consolidated after action report required by reference (c).

c. Headquarters and Maintenance Squadron 15. Provides IMA support to include Maintenance and Supply coordination for the exercise.

d. Marine Aerial Refueling/Transport Squadron 152. Provides flight refueling as outlined in Annex A.

e. Clark AFB. Provides base facilities as tasked by 13th Air Force to support the exercise.

f. Military Airlift Command. Provides airlift support for coordinated MAG-15 airlift to and from Clark AFB.

g. Marine Fighter Attack Squadron 251 Det A

(1) Provide operational planning for squadron participation in the exercise.

(2) Deploy to Clark AFB with 5 F4J aircraft 13 officers and 60 SNCO and enlisted.

(3) Advance party of 2 officers and 2 SNCO and enlisted depart MCAS Iwakuni on 5 Sep 1977.

(4) Main body consisting of 1 officer and 58 SNCO and enlisted depart MCAS Iwakuni on 9 Sep 1977 via MAC aircraft.

(5) Five F4J aircraft flight ferry to Clark AFB on 10 Sep 1977 via aerial refueling. Annex A refers.

(6) F4J aircraft participate in LARK ADEX enroute to Clark AFB. Annex A.

(7) Det Alpha participates in Cope Thunder XI from 12 Sep 1977 to 23 Sep 1977 in accordance with Annex A.

(8) F4J aircraft redeploy to NAS Cubi PT., on 24 Sep 1977.

(9) Main body consisting of 3 officers and 60 SNCO and enlisted redeploy to MAS C[illegible] FT. on 17 Sep 1977.

(10) Submit daily flight data to VMFA-251. The primary means of transmittal will be by Naval message.

(11) Submit daily Cope Thunder AAR required by reference (c). Primary means of transmittal will be by telephone.

(12) Submit daily SITREP as required by reference (d). Primary means of transmittal will be by Naval message.

(13) Submit after action report to MAG-15 as required by reference (a).

h. Coordinating Instructions

(1) Code name for this exercise is Cope Thunder XI.

(2) L Day, H Hour is 1400Z% Sep 1977.

(3) See Annex C for Intelligence information .

4. ADMINISTRATIVE AND LOGISTICS. Annex B (Administrative and Logistics)

5. COMMAND AND SIGNAL

a. Signal. The primary means of communication between Det Alpha and VMFA-251 will be Autovon.

b. Command

(1) The MAG-15 OCE is MAJ T. D. SNDER.

(2) VMFA-251 Det Alpha will OPCON to Blue Forces Operations for all Cope Thunder missions.

M. W. ALEXANDER Jr
Lieutenant Colonel, U. S. Marine Corps
Commanding

ANNEXES:
A. Air Operations
B. Administrative and Logistics
C. Intelligence

DISTRIBUTION: Distribution "SPECIAL" plus
CG FMFPac
CG 1st MAW
CO MAG 15
CG 13th AF

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Marine Fighter Attack Squadron 251
FPO SAN FRANCISCO, CALIFORNIA 96602
[redacted] SEPTEMBER 1977
G-C-1

Annex A (Air Operations) to Operation Plan 4-77

Ref: (a) Advance Party Check List
(b) COMUSTDC 150900Z Aug 77 (S)

Time Zone: Z

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces. See para. 1b of the basic plan.

2. MISSION. VMFA-251 Det Alpha deploys with 5 F4J aircraft to Clark AFB for Cope Thunder XI.

3. EXECUTION

a. Concept of Operations. VMFA-251 Det Alpha flight ferries to Clark AFB to participate in Cope Thunder XI.

b. VMFA-251 Det Alpha

(1) On 5 Sep 1977 the advance party departs MCAS Iwakuni via MAC airlift. They will carry out the tasks assigned in reference (a). Advance party personnel are assigned in Annex B.

(2) On 9 Sep 1977 the main body departs MCAS Iwakuni via MAC airlift. They will establish maintenance spaces as directed by OCE.

(3) On 10 Sep 1977 5 F4J aircraft in one aerial depart MCAS Iwakuni and ferry to Clark AFB via aerial refueling. Appendix 1 and 2.

(4) On 10 Sep 1977 5 F4J aircraft participate in LARK ADEX in accordance with reference (b).

(5) On 12 Sep 1977 all personnel receive Cope Thunder "In Briefings".

(6) During the period 13 Sep 1977 through 23 Sep 1977 Det Alpha participates in Cope Thunder XI in accordance with daily frag.

(7) On 24 Sep 1977 [illegible] aircraft, in two serials deploy to NAS Cubi PT. at which time Det Alpha is dissolved.

(8) On 25 Sep 1977 the main body deploys to NAS Cubi PT. and joins VMFA-251.

M. W. ALLENDER JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendices

1. Flight Ferry Routes
2. Flight Sequencing
3. Aircrew Assignments
4. Enroute and Destination Airfield Data

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[illegible] Attack Squadron 251
[illegible], CALIFORNIA 96600
[illegible] September 1977

Appendix A (Flight Ferry route) to ANNEX A (Air Operations) to Operation Plan 4-77

Time Zone:

Ref: (a) NATOPS Refueling Manual

1. General

a. Five F4J aircraft will flight ferry to Clark AFB, Republic of the Philippines on 10 September 1977. Aerial refueling will be used between MCAS Iwakuni and Clark AFB. The five F4J will depart MCAS Iwakuni at 1000Z Sep 77 and proceed to the W-179 area for aerial refueling via route depicted in TAB A. The first serial (3 F4J) will then depart the W-179 at 1001Z Sep 77 to arrive at the Taiwan FAKER track initial point at 1002100 Sep 77 and proceed to the exit point via route depicted in TAB B (classified). The second serial will depart the W-179 at 1003152 Sep 77 to arrive at the Taiwan FAKER track initial point at 1002152 Sep 77 and proceed to the exit point via route depicted in TAB C (classified). The remainder of the route to Clark AFB is depicted in TAB D. Weather criteria for conducting FAKER tracks is VMC and 5 miles visibility. In the event scheduled FAKER tracks over the Republic of Taiwan are cancelled, all aircraft will proceed to Clark AFB via route depicted in TAB E.

b. All computations in TABS A through D are based on NO-WIND conditions. In the event of a 50 knot headwind, estimated fuel remaining at Clark IAF will be 4100# for the FAKER track route and 5300# for non-FAKER track route. Therefore, in the event of a 50 knot headwind, the following minimum weather criteria are established for continuing the missions:

(1) Clark AFB (Destination) - Wx at/or above non-precision minimums.

(2) Cubi NAS (Alternate) - 1500 ft ceiling/3 miles visibility.

c. Tanker procedures will be in accordance with reference (a).

d. Ferry Configuration:

(1) One 600 Gallon centerline tank per aircraft.

(2) Two aircraft with one CNU-169A each.

(3) Two MU-17's per aircraft with [illegible] each.

[signature]

E. H. [illegible] JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

TABS

A. Flight Ferry Route Description - to W-179 ARCP and from FAKER Track to Cla[illegible]
B. Flight Ferry Route Description - 1st Serial FAKER Track (Classified)
C. Flight Ferry Route Description - 2nd Serial FAKER Track (Classified)
D. Flight Ferry Route Description - No FAKER Track

IWAKUNI ⊕ ARCP (W179)

TO	LATITUDE LONGITUDE	TAS	M#	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT	ETE ATE	ETTE ATTE	EFR AFR	EFL AFL	BINGO TACAN	DIST	[illegible]
STTO [illegible]	34°08'N 132°13'E										1.0	16.5			
YAMA 2 DEP KUMA PT	33°37'N 132°53'E				6W	140	45	45	0+07	0+07	2.0	14.5	35	45	
TOJIKA PT	33°11'N 132°22'E	480	.85		6W	231	31	76	0+04	0+11	.8	13.7	35	57	
KAGO-SHIMA	31°42'N 130°36'E	480	.85		5W	231	132	208	0+17	0+28	1.7	12.0	35	170	
BONTEN	33°00'N 129°50'E	480	.85		4W	206	110	318	0+14	0+42	1.4	10.6	57	242	
DEPARTURE PT		480	.85		3W	229	180	498	0+23	1+05	2.3	8.3	57	83	
W-179 ARCP		280	.45		3W	229	20	518	0+03	1+08	.3	8.0	57	72	
END A/R DROP PT		280	.45		3W	275	60	578	0+13	1+21		17.0	57	112	

REMARKS, CLNC

1. All figures based on NO-WIND
2. In event of 50 kt. headwind - EFL at CLARK IAF = 4100#
3. FL 310 to ARCR FUEL FLOW = 6000#
4. FL 200 for A/R FUEL FLOW = MIL
5. A/R = 12000#

END OF FAKER TRACK - CLARK AFB

TO	LATITUDE LONGITUDE	TAS	M#	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT	ETE ATE	ETTE ATTE	EFR AFR	EFB AFL	BINGO TACAN	[illegible]	[illegible]
LEVEL 310				167	1W	168	18	1174	0+03	2+39	.3	9.2	101	[illegible]	
IACAG	18°24'N 120°38'E	480	.853	169	1W	170	142	1316	0+18	2+57	1.8	7.4	99	[illegible]	
POR. POINT	16°37'N 120°17'E	480	.85	193	1W	194	109	1425	0+14	3+11	1.4	6.0	99	[illegible]	
CLARK IAF		480	.85	173	0W	173	62	1487	0+08	3+19	.8	5.2	99	[illegible]	
[illegible]	15°11'N 120°33'E				0W						1.0	4.2			

[illegible] / CLNC

1. All figures based on FC-WIND
2. In event of 50 Kt. headwind - EFL at CLARK IAF = 4100
3. At 310 FUEL FLOW = 5000# after FAKER track

IWAKUNI - CLARK NON-FAKER TRACK

TO	LATITUDE / LONGITUDE	TAS	M#	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT	ETE ΔTE	ETE ATE	EFR AFR	EFL AFL	BINGO TACAN	DIST	REMARKS
STTC	34°08'N 132°13'E										1.0	16.5			CH35 NEU
YAMA P DEPT KUMA AW	33°32'N 131°53'E				6W	140	45	45	0+07	0+07	2.0	14.5	35	45	CH35 140°R/45
TOJIMA PT	35°11'N 132°22'E	480	.85		6W	231	31	76	0+04	0+11	.8	13.7	35	57	CH35 179°R/57 CH80 051°R/129 FL310
KAGOSHIMA	31°42'N 130°26'E	480	.85		5W	231	132	208	0+17	0+28	1.7	12.0	35	170	CH80 HKC
SOUTH	33°20'N 129°50'E	480	.85		4W	206	110	318	0+14	0+42	1.4	10.6	57	242	CH80 206°R/110 CH78 025°R/166
DESCENT PT		480	.85		3W	229	180	498	0+23	1+05	2.3	8.3	57	83	CH57 347°R/83 CH78 285°R/64 FL200
W179 ARCP		280	.45		3W	229	20	518	0+03	1+08	.3	8.0	57	72	CH78 275°R/75 CH57 335°R/72 FL 200
END A/R DROP PT		280	.45		3W	275	60	578	0+13	1+21		17.0	57	112	CH78 275°R/135 CH57 335°R/112

REMARKS / CLNC

1. All figures based on NO-WIND
2. In event of 50 kt headwind - EFL at CLARK IAF = 5300#
3. FL 310 FUEL FLOW = 6000#/Hr to ARCP
4. FL 200 FUEL FLOW = MIL for A/R
5. A/R = 12000#

TO	LATITUDE LONGITUDE	TAS	M#	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	TOT	ETE ATE	ETTE ATTE	EFR AFR	EFL AFL	BINGO TACAN	DIST	REMARK
LEVEL FL 310				196	3W	199	18	596	0+03	[illegible]+24	.3	16.7	57	107	
MIYAKO JIMA	24°[illegible]'N 125°[illegible]8'E	480	.85	196	3W	199	154	750	0+20	1+44	2.0	14.7	57	166	CH122
B32 to [illegible]	[illegible]°00'N 12[illegible]°33'E	480	.85		2W	217	276	1026	0+35	2+19	3.5	11.2	101	178	Report CH84 1 CH116
[illegible] to [illegible]	[illegible]°34'N 12[illegible]°31'E	480	.85		3W	214	105	1131	0+13	2+32	1.3	9.9	101	213	Report CH84 1
[illegible]	[illegible] 120°38'E	480	.85		[illegible]W	214	99	1230	0+12	2+44	1.2	8.7	99	177	CH88 L
[illegible]	16°[illegible]'N [illegible]'E	480	.85	193	[illegible]W	194	109	1339	0+14	2+58	1.4	7.3	99	177	CH80 P
CLARK [illegible] IAP		480	.85		[illegible]	173	62	1401	0+08	3+06	.8	6.5	99	24	CH 99 DIVERT
CLARK	15°11'N 120°33'E				0						1.0	5.5	99		FUEL R[illegible] 4.6 CUB 120°/[illegible]

REMARKS / [illegible]

1. All figures based on NO-WIND
2. In event of 50 kt headwind - EFL at CLARK IAP = 5300#
3. FL310 FUEL FLOW = 6000#/Hr for Ferry
4. FL200 FUEL FLOW [illegible] for A/R
5. A/R = 12000#

[illegible]

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[illegible] Fighter Attack Squadron 252
[illegible], CALIFORNIA 96602
[illegible] September 1977
[illegible]

Appendix 2 (Flight Sequencing) to Annex A (Air Operations) to Operation Plan 4-77

Time Zone: Z

1. MCAS Iwakuni to W-179

[illegible] Sep 77 [illegible]

2. W-179 to Initial Point of FAKER Track

(a) 1st Serial 10013Z Sep 77 3AF4

(b) 2nd Serial 10015Z Sep 77 2AF4

3. Initial Point of FAKER Track

(a) 1st Serial 10021Z Sep 77

(b) 2nd Serial 10021[illegible] Sep 77

NOTE: All times based on NO-WIND Conditions.

M. W. Allinder, Jr.

M. W. ALLINDER JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

[illegible]
[illegible]
[illegible] 96602
[illegible]
[illegible]

Appendix 3 (Flight Ferry Crews) to Annex A (Air Operations) to Operation Plan 4-77

Time Zone: Z

1. Aircrew Assignments

a. Serial #1

Pokey	701-1	MAJ [illegible]/LT [illegible]ZYK
	701-2	LT GUSTIN/CAPT FUCHS
	701-3	CAPT SMITH/CAPT [illegible]

b. Serial #2

Pokey	702-1	CAPT [illegible]/LT [illegible]
	702-2	LT SHIPMAN/CAPT DOYLE

M. W. ALLINDER JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

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[illegible] CALIFORNIA 96[illegible]02
[illegible]
[illegible]

Appendix A (Enroute and Destination Airfield Data) to Annex A (Air Operations) to Operation Plan [illegible]

Time Zone: Z

1. The following is a list of destination and enroute airfields to include pertinent data extracted from the [illegible] Supplement.

a. [illegible] KADENA. 26°[illegible]'N 127°[illegible]'E [illegible]
Elevation: [illegible]'
RWY Length: [illegible]'

RWY 05L MALA BAK-12(B) BAK-13(B) ______________________
17'(OVRN) [illegible]' [illegible]'

______ BAK-13(B) BAK-12(B) RWY 23R
3175' 1597'

RWY 05R MALA BAK-11/12(B) BAK-12(B) ______________________
150'(OVRN) 1102' 2700'

______ BAK-11/12 BAK-12(B) MALA RWY 23L
2111' 1100' 36' OVRN

AERODROME REMARKS

Extensive jet and low level activity within 50NM. Rwy 05L preferred runway. No visual references available on night traffic beyond end of runway 23L/R. Wind for each runway available from tower. Use extreme caution when taxing; extensive vehicle traffic and construction. Rwy 05R-23L grooved beginning 500' from threshold both ends. Rwy 05L grooved 3100' and Rwy 23R grooved 1500', each begins 500' from threshold. All aircraft contact GND prior to eng start. Inbound aircraft expect extensive holding or diversion due to priority departures. VASI Touchdown PT Rwy 23R is 1050'. Traffic pattern: 1700'MSL overhead 1200' rectangular. MIJI possible on UHF.

COMMUNICATIONS

TWR	315.8, 236.6
GND	275.8
APP	258.3, 254.8
METRO	344.6
CINC	235.0

TACAN. CON CHAN 57

NDB. 267.6 (AUX 3) -- Controller will broadcast instructions on this freq if NORDO.

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
5R	200-3/4	400-1	500-2 3/4
23L	200-½	500-1 3/4	500-2 3/4

b. TAI-NAN, TAIWAN. 22°57'N 120°12'E GMT+8
Elevation: 52'
Rwy Length: 10,000'

Rwy 18 MAIA BAK-9(B) BAK-12(B) _____
(100'OVRN)(9' OVRN) (1500')

_____BAK-12B LNK-9B MAIA BWI36
(40'OVRN) (101'OVRN)

AERODROME REMARKS

CAUTION: Arpt located 10NM S, same runway ndg. CAUTION-HI density student trng jet traffic. CAUTION--unscheduled high angle and high speed climbs to 15000'. CAUTION: 45' high rwy surveillance units E side of Rwy 18-36, 325' from centerline, 1000' from approach ends. Tower has limited visibility of takeoff area. Tower and APP CON manned by CAF Controllers. Overrun does not meet USAF standards. FOD hazard in all areas.

COMMUNICATIONS
TWR 283.6, 236.6
GND 275.8
APP 363.5, 238.7

TACAN. TWS CH 101

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
18	700-1½	800-1 3/4	600-2
36	300-3/4	400-1¼	500-2

c. CLARK AFB. 15°11'N 120°33'E GMT+8
Elevation: 478'
Rwy LENGTH: 10,500'

RWY 02 MAIA/BAK-9 BAK 12(B) _____
(43'OVRN) (8') (1300')

_____BAK-12(B) BAK-12(B) BAK-9/MAIA RWY 20
(2516') (1231') (9') (41' OVRN)

AEROMED REMARKS:

All VFR aircraft inbound to CLARK AFB contact RAD 15 min prior to arrivals. Maneuvering W of field restricted due to high terrain, Mt. Arayat, 3355'MSL 11 NMI of field. No straight-in VFR approach to Rwy 02 beyond 5 NM due to close proximity of BASA AB 12 NM S of field. Caution operations in close proximity to approach end Rwy 02-20. Jump engines only on N or S jump path, parallel taxiway, cross taxiway 4 and the Lagoon. Special VFR not authorized for F/W aircraft. 15 min advance notice required for MA-1A/BAK-9. MA-1A/BAK-9 disengaged on approach end and are activated on departure end active runway. Both BAK-12's fully activated at all times. BAK-13 approach end engagement Rwy 20 15 min prior notice required. Traffic pattern: Rectangular 1500'MSL 360° overhead 2000' MSL. Rwy 20 left traffic, Rwy 02 Right traffic. Clsd traffic pattern: do not turn downwind till 1200' MSL.

COMMUNICATIONS
TWR 255.8
GND 275.8
APP 251.4
CLNC DEL 265.6
METRO 344.8

TACAN: CRK CH 99
AUX RWY: 267.6 (AUX 3) for App Con and Tower at backup

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
02	200-½	700-1 3/4	700-2¾
20	200-½	300-1 3/4	600-2

a. AERIAL POINT NAS. 14°48'N 120°16'E GMT+8

Elevation: 55'

Rwy Length: 9000'

Rwy 07 E-28S E-28(B) ..... E-28(B) E-28(B)
(3495') (2374') (4170') (1177')

AERODROME REMARKS:

CAT C airfield. Right traffic Rwy 25. Do not overfly fuel pier located 060° NM from approach end Rwy 25. Do not overfly Naval Magazine below 5000' located 1½ NM SSE approach end Rwy 07. Do not overfly city of Olongapo below 2500' in VFR conditions. Extensive carrier jet training in Subi terminal area. Field carrier landing practice in progress 0600-2400 local daily.

UNCLASSIFIED

COMMUNICATIONS
TWR [illegible]
GND 360.[illegible]
APP [illegible]
GCA DEP [illegible]
ASTRO 344.6

TACAN NGI CHAN 77

APPROACH WEATHER MINIMUMS

ENL	PAR	TACAN	CIRCLING
	100-1½	300-1	300-2

M. W. [illegible] JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

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MCAS SAN FRANCISCO, CALIFORNIA 96602
[illegible] NOVEMBER 1977
[illegible]

Annex B (Administrative/Logistics) to Operation Plan 4-77

Ref: Annex X

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces. See Par 1b of the Basic Order.

2. MISSION

a. VMFA-251 Det A will deploy to Clark AFB PI. in support of exercise Cope Thunder XI.

b. Concept of Logistics/Administrative

(1) Advance party personnel will be tasked with setting up working spaces, billeting, and liaison for operations.

(2) Area coordinates are as follows:

Hangar 7031
Operations 7285
Enlisted Barracks 5205
BOQ CHAMBERS HALL
STAFF BARRACKS B-1
Trailers Check-In BLG 5107

(3) Enlisted personnel must pay 2.00/day for their rooms.

(4) Mess Hall Bld 6473 Hours of operation.

MON - FRI	SAT - SUN
BKFT 0500-0800	0800-0900
LUNCH 1030-1300	1200-1300
DINNER 1500-1830	
MIDS 2200 - 0130	2230-0130

(5) Transportation

(a) VMFA-251 Det A will be allocated a minimum of 2 vehicles upon request. All vehicles assigned will be driven only

by licensed drivers. Vehicles will be maintained in accordance with AirForce Regulations.

(b) A 24 hour [illegible] for individual transportation.

(6) <u>Miscellaneous Administration</u>

(a) TAD orders will be provided prior to departure.

(b) Advanced TAD checks will be distributed upon arrival at Clark AFB.

(c) Normal payday will be on 15 Sept. Checks will be ferried to Clark AFB.

(d) Mail will be readdressed and forwarded by VMFA-251.

(e) Mailing address for direct delivery is:

NAME SSN
VMFA-251
Cope Thunder XX
General Delivery
APO San Francisco, Ca. 96274

c. <u>Organization for Embarkation</u>

(1) <u>Advance Party</u>

(a) Personnel assigned by Appendix 1 to the advance party will depart from the passenger terminal MCAS Iwakuni Japan on 5 Sep 77.

(b) Travel uniform will be by type aircraft utilized; C130 utilities, C-141 Summer "C".

(c) Personal baggage will be hand carried and transported with each indivinal.

(2) <u>Main Body</u>

(a) Personnel assigned to the main body (Appendix 2) will depart from the passenger terminal on 9 Sep 77. Show time to be announced.

(b) All Main Body cargo will be staged on the mat area between the hanger & maintenance control.

(c) Custom inspection will take place in the squadron area prior to the loading of any advance baggage.

(d) Travel uniform requirements will be the same as for the advance party.

(e) Individual baggage will be checked by customs in the squadron area and secured.

H. W. ALKINER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendices

1. Advance Party Assignment
2. Main Body Assignment

[illegible]

[illegible]

Appendix [illegible] (Advance Party Assignment) to Annex E (Administrative/Logistics) to Operation Plan [illegible]

Time Zone: Z

CLARK AFB DEPLOYMENT
ADVANCE PARTY

RANK	NAME	SSN/AFSC
2ndLT	W. [illegible] TEMPSHER	[redacted]
CAPT	J. A. TURNER	
MSGT	[illegible] K. MOLLAN	
CPL	R. J. HUDIC	

M. W. [illegible] JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

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Appendix 2 (Main Body Assignment) to Annex B (Administrative/Logistics) to Operation Plan [illegible]

Time Zone: [illegible]

CLARK AFB DEPLOYMENT
MAIN BODY

RANK	NAME	SSN/MOS
WO-1	T. [illegible] BUX	[redacted]/6002
SSGT	J. [illegible] SMITH	[redacted]/6014
SGT	M. A. HOLLIDAY	[redacted]/6062
CPL	[illegible] M. SMITH	[redacted]/6014
SSGT	[illegible] HENLEY	[redacted]/6014
SGT	K. E. ROMER	[redacted]/6014
SGT	M. VANDERWALL	[redacted]/6014
CPL	S. A. WOODWARD	[redacted]/6014
LCPL	M. UPSHAW	[redacted]/6014
LCPL	M. J. KARCHER	[redacted]/6014
LCPL	R. J. PALMER	[redacted]/6014
SSGT	E. J. MENEAR	[redacted]/6076
LCPL	H. E. BENSON	[redacted]/6071
SGT	A. R. COHEES	[redacted]/6062
LCPL	R. E. FAIRCLOTH	[redacted]/6062
SGT	F. DOPORTO	[redacted]/6054
CPL	J. A. D'ANGELO	[redacted]/6054
LCPL	W. D. MCMILLAN	[redacted]/6054
PFC	W. M. IRELAND	[redacted]/6054
SGT	R. L. BANKHEAD	[redacted]/6042
LCPL	K. G. COMMODORE	[redacted]/6042
LCPL	R. L. CARR	[redacted]/6042
PFC	K. L. CRANDALL	[redacted]/6042
CPL	J. A. STOLTZFUS	[redacted]/6024
SGT	D. R. NORWOOD	[redacted]/6024
CPL	D. R. SAUNDERS	[redacted]/6024
LCPL	R. I. GUNT	[redacted]/6024
SGT	C. D. MAYS	[redacted]/6531
CPL	L. G. JONES	[redacted]/6531
CPL	S. W. LINDSEY	[redacted]/6531
LCPL	G. L. JOHNSON	[redacted]/6531
PFC	L. R. FOSTER	[redacted]/6531
SSGT	G. L. SMITH	[redacted]/6657
SGT	A. R. MAYBERRY	[redacted]/6657

CPL	W. G. [illegible]	[redacted]
CPL	R. D. [illegible]	[redacted]
LCPL	E. A. SWA[illegible]	[redacted]
LCPL	P. B. MO[illegible]	[redacted]
GYSGT	R. S. HOST[illegible]	[redacted]
SGT	[illegible] L. [illegible]	[redacted]
CPL	[illegible]	[redacted]
LCPL	J. L. SHA[illegible]	[redacted]
S[illegible]	[illegible] R. LORD	[redacted]
LCPL	[illegible] E. PARKER	[redacted]
GYSGT	D. A. SNELL	[redacted]
CPL	J. [illegible] HOFFMAN	[redacted]
CPL	J. V. BUENNAG[illegible]	[redacted]
CPL	[illegible] BEEDON	[redacted]
S[illegible]	[illegible] PORTER	[redacted]
PVT	R. [illegible]	[redacted]
GYSGT	M. M. PE[illegible]	[redacted]
L[illegible]	R. A. [illegible]	[redacted]
SSGT	[illegible]	[redacted]
CPL	D. D. [illegible]	[redacted]
[illegible]	D.	AN[illegible]	[redacted]
LCPL	R. P. DOZIER	[redacted]
LCPL	S. N. CABAROAS	[redacted]
GYSGT	J. A. [illegible]	[redacted]
PFC	N.	LACERDA	[redacted]

M. W. Allinder Jr

M. W. ALLINDER JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

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[illegible]

[illegible]
[illegible] Squadron 251
[illegible] CALIFORNIA 96602
[illegible] 1977

Annex C (Intelligence) to Operation Plan [illegible]

Ref: (a) OPNAVINST [illegible]
(b) [illegible] Intelligence Center [illegible] 3131

Time Zone: Z

1. Summary of Enemy Situation

a. This annex and all appendices are to be utilized as necessary for the tactical movement of VMFA-251 Det A to Clark AFB and tactical operations during Operation Cope Thunder [illegible]. Although declared enemy forces are not a factor, dissident factions in the Philippines with anti-U.S. philosophies are abundant. Any aircrew in a SERE environment should consider all non-US personnel as hostile and make every effort to avoid contact until SAR efforts by US forces are effected.

b. The area of operation for this exercise will be a route from MCAS Iwakuni to Clark AFB and local working areas of Clark AFB.

c. For the duration of the operation all intelligence procedures will be in accordance with reference (a) and applicable FMFPAC, CINCPAC, CINCPACFLT, 1st MAW and Cope Thunder directives.

2. Report sightings of any military vessels and/or aircraft; MIJI incidents and RHAW cockpit indications to the S-2 Officer, either written or verbally, as soon as possible.

3. The terrain of the Philippine Islands is a dense tropical, wilderness with an abundance of wildlife, plants and fish. All aircrews should familiarize themselves with reference (b) and other applicable publications concerning JUNGLE survival. Consideration should be given to personal equipment maintained in aircrew members' survival vests. Additional survival information will be the subject of aircrew training prior to departure and will not be included in this annex.

M. W. ALLINDER JR
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendix
1. Climatology Data

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FPO San Francisco, California 96602
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[illegible]

Appendix 1 (Climatology) to ANNEX C (Intelligence) to Operation Plan A-77

Ref: (a) Telecon with MCAS Iwakuni METRO and VMFA-251 (S-2) of 29 August 1977

Time Zone: Z

1. Purpose. To provide climatology data for military flight operations.

2. Area Covered. This appendix covers Cherk AFB, S.F.

3. Climatological Summary for September 1977

Average Daily Max (°F)	86
Daily Mean (°F)	80
Average Daily Min (°F)	74
Extreme Max	95
Extreme Min	68
Mean Relative Humidity (%)	(0500)91(1400)72
Mean Measurable Precipitation	(Inches) 13

Average Cloud Bases (All - Percentage)

0-250'	24%
1000-2000'	12%
2000-3000'	14%
above 3000'	19%
none	31%

W. W. ARMBRUSTER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

COPE THUNDER POST DEPL RPT

FILE 9R

UNCLAS

FITUZYUW RUMMWIA1555 2721328-UUUU--RHAPSAA.
ZNR UUUUU

FM [illegible] ONE
TO [illegible] FIFTEEN
BT
UNCLAS //N03500// SECTION 1 OF 2

VMFA 251

A. [illegible] LTR [illegible]/4750 DTD 8 AUG 1977
B. VMFA 251 [illegible] LTR 29:ELD:MEP/4750 DTD 16 AUG 1977
1. INFORMATION
   A. UNIT-VMFA 251
   B. NUMBER/TYPE A/C DEPLOYED-5/F4J
   C. DEPLOYMENT/REDEPLOYMENT DATES
      (1) ADVANCE PARTY 5 SEP 77
      (2) MAIN BODY 7 SEP 77
      (3) 5 F4J'S 8 SEP 77
      (4) 5 F4J'S REDEPLOYMENT 23 SEP 77
      (5) MAIN BODY 24 SEP 77
   D. NUMBER OF AIRCREWS DEPLOYED 10 (5PILOT/5RIO)
   E. NUMBER/TYPE SUPPORT PERSONNEL DEPLOYED 37
      H&MS 15 C1A 20

PAGE 2 RUMMWIA1555 UNCLAS
      VMFA-251 AUGMENTEES TO H&MS-15 17
2. TACTICS EMPLOYED-TO BE ISSUED SEPARATELY
3. PROBLEMS ENCOUNTERED
   A. OPERATIONS
      (1) OPERATIONALLY COPE THUNDER XI WAS VERY WELL ORGANIZED. COPE THUNDER WHITE FORCE WAS EXTREMELY HELPFUL WHENEVER ANY [illegible] WERE ENCOUNTERED.
      (2) WEATHER PLAYED A MAJOR FACTOR DURING THIS EXERCISE. A WEATHER RECONNAISSANCE FLIGHT PRIOR TO STRIKE MISSIONS WOULD PROVIDE TIMELY WEATHER DATA. TACTICS COULD THEN BE [illegible] ACCORDINGLY.
      (3) TANKER AVAILABILITY/GIVE-AWAY FUEL WAS A PROBLEM DURING THE LAST WEEK OF THE OPERATION. THERE WERE OCCASIONS WHEN THE KC-130 WAS DOWN AND UNABLE TO FLY SUPPORT MISSIONS. ON SEVERAL OTHER MISSIONS, THE WHITE FORCE [illegible] BOTH F-4'S AND A-4'S TO RECEIVE MORE FUEL THAN THE KC-130 WAS CAPABLE OF GIVING AWAY, THEREBY SACRIFICING TO SOME [illegible].
   B. MAINTENANCE
      (1) GENERAL. THE COPE THUNDER XI DETACHMENT WAS THE FIRST MAG 15 DEPLOYMENT UNDER THE FULL SYSTEMS CAPABLE (FSC) CONCEPT.

29 11 15Z SEP 77

TAB 7

WAS REQUIRED [illegible] SUPPORT PACKAGE THAT HAS NOT BEEN EXPERIENCED [illegible]. MANY OF THE PROBLEMS EXPERIENCED WERE SIGNIFICANT, HOWEVER THE RESPONSIVENESS OF THE MAG-15 DETACHMENT WAS TIMELY. THE FOLLOWING IS PRESENTED TO AVOID COSTLY MISTAKES IN FUTURE COPE THUNDER DEPLOYMENTS.

(2) EQUIPMENT NEEDED-NOT DEPLOYED.

(A) A MINIMUM OF TWO RT 755 (TACANS) WERE REQUIRED. SUPPLY PROVIDED ONE. FURTHER COMPLICATIONS DISCUSSED BELOW AMPLIFY THIS REQUIREMENT.

(B) AVIONICS PEB, ESPECIALLY FOR 1527 RADARS, WAS UNDERSTOCKED. FURTHER DISCUSSION FOLLOWS.

(3) EQUIPMENT DEPLOYED-NOT NEEDED. NONE

(4) TEST EQUIPMENT NEEDED-NOT DEPLOYED/NOT AVAILABLE-SEE (6)(B)

(5) TEST UTILIZATION-NUMBER USED-NOT AVAILABLE. THE MAG 15 GSE DEPLOYED WITH ONE TIRE BUILDUP MAN. HOWEVER, HE WAS DEPLOYED WITHOUT THE PROPER TOOLS AND CONSUMMABLE PARTS. THE MAIN GEAR TIRES ON THE F4 C/E AND F4J ARE NOT INTERCHANGEABLE. ALSO THE AIR FORCE USES COMPRESSED AIR AND NOT NITROGEN TO BUILD THEIR TIRES. A TOTAL OF 4 MAIN GEAR TIRES AND 8 NOSEGEAR TIRES WERE USED.

(6) ADEQUACY OF PERSONNEL SUPPORT PACKAGE DEPLOYED.

(A) UPON ARRIVAL AT CLARK THE FIVE AVIONICS VANS WERE IN PLACE WITHIN 24 HOURS, MAG 15 GSE WAS THEN REQUIRED TO ATTACH THE GENERATORS TO POWER THE VANS. THE GSE PERSONNEL WERE NOT FAMILIAR WITH THE GENERATORS AND AN ADDITIONAL NUMBER OF HOURS WERE REQUIRED TO ATTACH POWER TO THE VANS.
AT THE PRESENT TIME MAG 15 GSE IS USING 200 KVA GENERATORS TO POWER THE AVIONICS VANS. THE VANS DO NOT DRAW ENOUGH POWER TO ALLOW THESE GENERATORS TO OPERATE EFFICIENTLY.

(B) THE TACAN SUPPORT PROVIDED BY THE NAVIGATION BENCH WAS UNSATISFACTORY, FIRST, A SHORTAGE OF TACANS IN THE SUPPLY PACKAGE EXISTED. THIS UNIT REQUESTED THAT AS A MINIMUM 2 RT755 BE PROVIDED. ONLY ONE WAS, DURING THE TWO WEEK DEPLOYMENT PERIOD A TOTAL OF 17 TACANS WERE REPLACED. AN EXAMINATION OF THE TACAN BENCH BY AIR FORCE PERSONNEL REVEALED MAJOR WIRING DISCREPANCIES REQUIRING WEEKS TO REPAIR, AND FOR THE LAST TWO DAYS OF THE DEPLOYMENT THE BENCH WAS INOPERATIVE.

(C) THIS SQUADRON ALSO EXPERIENCED A SERIOUS RADIO PROBLEM. DURING COPE THUNDER TWELVE RADIOS WERE REPLACED, THE RADIOS CONSTANTLY LOST PRESSURIZATION BECAUSE OF A LACK OF SEALS.

THE ONLY MAINTENANCE REQUIRED TO FIX THE RADIOS WAS TO PUMP THE RADIOS TO 5 PSI WITH A HAND PUMP.

C. LOGISTICS

(1) GENERAL. IN ALL FUTURE DEPLOYMENTS SUPPLY HAS TO MEET ALL MILESTONES REQUIRED SIMILAR TO REF (A). FOR COPE THUNDER XI THIS UNIT PROVIDED THE GROUP SUPPLY OFFICER WITH A LIST OF ITS PACKUP [illegible] ON [illegible] AS REQUIRED BY MILESTONE S-1 IN REF (A). THE FOLLOWING IS A LIST OF MILESTONES THAT WERE NOT MET BY SUPPLY DESPITE ALL EFFORTS.

MILESTONE	DESCRIPTION
S-3	SUBMIT EMBARKATION DATA ON SUPPLY PACKUP AND NUMBER OF AUGMENTEE PERSONNEL TO MAG 15 EMBARKATION OFFICER. SUPPLY STATED THAT THEY HAD 5-7 58 CUBIC INCH BOXES. IN REALITY THEY SHIPPED OVER 15 NEGATING ALL EMBARKATION PLANNING.
S-1-B	PROVIDE TO THE SQUADRON A TENTATIVE LISTING OF SUPPLY PACKUP AND STATUS OF OUTSTANDING REQUISITIONS. NO ACTION.
S-1-C	SAME AS ABOVE IN S-1-B.
S-1-D	SUBMIT A FINALIZED PACKUP LISTING TO THE SQUADRON AT D-5. LIST WAS PROVIDED AS AIRCREWS CLIMBED INTO AIRCRAFT FOR DEPLOYMENT.

[illegible] RUHMVIA 1954 2781400-UUUU--RHMFSAA.
ZNR UUUUU
P 081110Z SEP 77
FM VMFA TWO FIVE ONE
TO MAG FIFTEEN
BT
UNCLAS //N03500// SECTION 2 OF 2
(5) CARGO/ALERT [illegible] MOVEMENT PROBLEMS.
(A) GENERAL. ALL EQUIPMENT AND PERSONNEL WERE TRANSPORTED IN A TIMELY MANNER WITH FEW DELAYS. MATERIAL HANDLING EQUIPMENT AND WORKING PARTIES WERE ON HAND FOR ALL CRITICAL MOVEMENT PERIODS.
(B) DIVISION OF CONTROL/ASSIGNMENT OF RESPONSIBILITY WAS NOT SPECIFIED.
(C) MISSION SPECIFICATIONS. DUE TO NUMEROUS CHANGES IN THE OVERALL CLARK, CUBI PT, KADENA MISSION, RESPONSIBILITIES PRIOR TO THIS EXERCISE, THE EMBARKATION LOAD DATE FLUCTUATED FAR BEYOND A POINT THAT ALLOWED FOR ACCURATE LOAD PLAN SUBMISSION.
(D) OVER ONE HALF OF ALL EMBARK CONTAINERS UTILIZED ON THE COPE THUNDER DETACHMENT WERE INCORRECTLY TAG [illegible].
(E) AVAILABILITY OF PORTABLE SCALES. EACH UNIT SHOULD HAVE AS PART OF ITS SQUADRON PROPERTY A PORTABLE SCALE WITH A MINIMUM OF 1000 LB CAPACITY.
(6) POL SUPPLY ADEQUACY. NO COMMENT

(7) ORDNANCE SUPPLY/HANDLING PROBLEMS. NO COMMENT
(8) BILLETING/MESSING PROBLEMS.
(A) THE OFFICER BILLETING AT CHAMBERS HALL WAS PREARRANGED BY THE ADVANCE PARTY AND NO PROBLEMS WERE NOTED.
(B) THE STAFF AND ENLISTED QUARTERS WERE ALSO PREARRANGED. SUPERVISION OF THESE QUARTERS WAS NECESSARY TO INSURE THAT THE PROPER MAINTENANCE WAS CARRIED OUT TO MAINTAIN ADEQUATE LIVING CONDITIONS (I.E. HOT WATER, INSECT PROBLEMS, ETC.) THIS CAN BE HANDLED BY THE DEPLOYED OFFICERS/NCO'S.
4. RECOMMENDATIONS CONCERNING 3 ABOVE
A. OPERATIONS.
(1) TWO KC-130'S BE IN SUPPORT OF COPE THUNDER EXERCISES. THIS WOULD ALLOW ADDITIONAL FUEL GIVEAWAY PLUS PROVIDE MARINE DETACHMENTS A TANKING CAPABILITY/EMERGENCY TANKING CAPABILITY SHOULD ONE KC-130 GO DOWN OR SHOULD THE WEATHER DETERIORATE.
(2) BLUE FORCE SHOULD LAUNCH A WEATHER RECONNAISSANCE FLIGHT ON MARGINAL WEATHER DAYS IN ORDER THAT TACTICS/ROUTES MAY BE BRIEFED FOR MISSION COMPLETION.
(3) TACTICAL TANKING AS DISCUSSED IN SECTION 2 (1)(3)(CURR) BE REVIEWED AND APPROPRIATE ADDITIONS BE MADE TO BOTH F4J AND AERIAL REFUELING NATOPS MANUALS.
B. MAINTENANCE.

(1) FOR ALL FUTURE M/C IS DEPLOYMENTS AN OFFICER SHOULD BE DESIGNATED AS THE DEPLOYMENT MAINTENANCE PROJECT COORDINATOR. THIS OFFICER SHOULD BE EXPERIENCED IN MAINTENANCE AT THE ORG AND INTA LEVELS. HE MUST POSSESS A THOROUGH KNOWLEDGE OF THE AVIONICS VANS AND THEIR POWER REQUIREMENTS. HE SHOULD BE CAPABLE OF COMMANDING ADHERENCE TO MILESTONE REQUIREMENTS DELINEATED IN REF (A).

(2) THAT M&MS 15 GSE PERSONNEL BE GIVEN TECHNICAL TRAINING AT LEAST QUARTERLY IN PROCEDURES FOR HOOKING UP GENERATORS TO THE VANS.

(3) WHEN OPERATING VANS OFF A GENERATOR AN MMC-2 IS REQUIRED TO PROVIDE 400 CYCLE POWER. THE MMC-2 IS A PIECE OF GSE THAT CANNOT GET WET. IT IS DESIGNED TO BE OPERATED IN A HANGAR. BEFORE DEPLOYING AGAIN, A SHELTER MUST BE PROVIDED FOR THIS PIECE OF GSE GEAR OR RISK LOSING VAN SUPPORT.

(4) TWEE OF KVA GENERATORS BE PROVIDED FOR FUTURE DEPLOYMENT OR DUMMY LOADS BE PROVIDED FOR THE 200 KVA GENERATORS.

(5) ADDITIONAL TIRES BE PROVIDED IN THE PACKUP AND THE TIRE BUILDUP MAN BE DELETED. IF TIRE BUILD UP MAN IS DEPLOYED A LIST OF ITEMS THAT SHOULD ACCOMPANY HIM IS:

5/16 SOCKET WRENCH
HEAT INSULATORS
VALVE CORES

TORQUE WRENCH
BEARINGS FOR MAIN TIRES.

(6) RADIO SEALS FOR RADIOS BE PROVIDED WITH M&MS 15 REP AND BE DEPLOYED WITH THE BENCHES.

(7) THE AVIONICS SUPPORT, GSE SUPPORT AND TEST EQUIPMENT THAT WAS REQUESTED IN REF B ARE LEGITIMATE REQUIREMENTS (EXCEPT TIRE BUILDUP MAN). THESE ARE THE MINIMUM REQUIREMENTS NECESSARY TO ACCOMPLISH THE MISSION.

C. LOGISTICS.

(1) THE RECAP VANS' REP MUST BE WELL STOCKED PRIOR TO DEPLOYMENT. RESUPPLY FOR BITS AND PIECES FOR 1527 RECAPS WAS VERY DIFFICULT.

(2) WHEN SQUADRON SUBMITS ITS PACKUP REQUIREMENTS, SUPPLY MUST SCREEN ITS RESOURCES AND FILL ANY DEFICIENCIES. THIS DETACHMENT DEPLOYED WITH TOO MANY SHORTCOMINGS IN ITS PACKUP.

(3) PRIOR ARRANGEMENTS MUST BE MADE BY THE ADVANCE PARTY FOR VERIFYING SPACE UTILIZATION AND SQUADRON TRANSPORTATION FOR USE PRIOR TO THE EXERCISE.

(4) ALLOW EACH UNIT TO TAKE CONTROL OF THEIR RESPONSIBLE PARK AREAS PRIOR TO THE ARRIVAL OF THE ALCE TEAMS. SCHEDULED ORIENTATION MEETINGS TO DELEGATE RESPONSIBLE PERSONNEL AND CONTACT POINTS SHOULD BE ARRANGED.

(5) PROPER PLANNING AND MORE SPECIFIC GUIDANCE FROM SENIOR OFF[illegible] WILL ALLOW SUBORDINATE UNITS TO BUILD A WORKABLE EMBARKATION PACKAGE FOR SUBMISSION ON A TIMELY BASIS.

(6) CONTINUED DILIGENCE BY EMBARKATION SECTION TO INSURE ALL EMBARK CONTAINERS ARE PROPERLY MARKED.

(7) CHANGE THE IMPL TO REFLECT THE REQUIREMENT FOR [illegible] LB CAPACITY SCALE AND PROVIDE FOR PURCHASE OF SAME.

5. RECOMMENDATIONS

A. CHANGES TO MANUALS, PROCEDURES UTILIZED DURING CORE THUNDER XI AS STATED IN SECTION B, TACTICS EMPLOYED (ISSUED SEPARATELY) SHOULD BE INCORPORATED.

B. IMPROVEMENTS TO CORE THUNDER. INCREASED JOINT USAF/USN [illegible] MISSIONS AS SEEN ON THE LAST DAY OF CORE THUNDER XI SHOULD [illegible] MANY MISSIONS WERE PURELY USN SUPPORTING USN AND USAF SUPPORTING USAF. THE TRAINING AND COMPLEXITY OF JOINT MISSIONS IS FANTASTIC.

C. FREQUENCY OF PARTICIPATION IN CORE THUNDER. WITHOUT A DOUBT, CORE THUNDER PROVIDES THE MAJORITY OF AIRCREWS WHO HAVE NOT YET BEEN EXPOSED TO COMBAT, THE MOST VALUABLE TRAINING AVAILABLE. FOR [illegible] SEASONED CREWS, EXPOSURE TO LATEST DEVELOPMENTS IN TACTICS AND WEAPONS AND REFRESHER TRAINING IN A COMBAT SCENARIO IS INVALUABLE. CONSEQUENTLY, AS FREQUENT AS POSSIBLE PARTICIPATION BY WHOLE

SQUADRONS, NOT JUST DETACHMENTS, IS WHOLEHEARTEDLY RECOMMENDED. CORE THUNDER IS A HIGHLIGHT OF A VECTRAC TOUR.

D. OTHER COMMENTS.

1. THE GROUND SUPPORT EQUIPMENT DEPLOYED WAS IN OUTSTANDING MATERIAL CONDITION AND REMAINED SO THROUGHOUT THE ENTIRE DEPLOYMENT. THEIR RESPONSIVENESS TO THIS UNITS DEMANDS FACILITATED [illegible]

AND ENSURED ALL AIRCRAFT WERE LAUNCHED IN A TIMELY MANNER, WELL DONE!

(2) THE RADAR VAN SUPPORT WAS REMARKABLE. THE VAN PERSONNEL ENABLED THIS DETACHMENT TO MAINTAIN ANOR RATE OF 70.6 PERCENT AND FSC RATE OF 72.8 PERCENT FOR THE FIVE AIRCRAFT AT CORE THUNDER. WELL DONE!

(3) THE ASSISTANCE PROVIDED BY AIR FORCE MAINTENANCE PERSONNEL WAS THE HIGHLIGHT OF THIS DETACHMENT. THEY PROVIDED BOTH RAMP AND MAINTENANCE PERSONNEL WHENEVER POSSIBLE.

(4) THE SPEEDY SERVICE RENDERED BY THE AIR FORCE EMBARKATION AND MAC TERMINAL PERSONNEL FACILITATED MOVEMENT INTO AND OUT OF CLARK.

(5) MAJ AMBROSE AND CAPT CAUDIN CONSTANTLY DISPLAYED [illegible] MINDEDNESS, INITIATIVE AND FLEXIBILITY IN DEALING WITH THE AIR FORCE [illegible] OPERATION OF THE AVIONICS VANS. WELL DONE!

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(2) AVAILABILITY OF PARTS. GROUP SUPPLY DEPLOYED THREE MARINES TO COPE THUNDER. TWO WERE STATIONED AT CLARK AND ONE AT CUBI. NONE OF THESE MEN HAD A GOVERNMENT DRIVERS LICENSE, MAKING IT EXTREMELY DIFFICULT TO PICKUP PARTS. THEIR ATTITUDE AND INITIATIVE WAS EXEMPLARY, HOWEVER.

(3) ADEQUACY OF LOGISTICS SUPPORT. THE MAJOR PROBLEM IN LOGISTICS WAS THE DEAD TIME PRIOR TO THE OFFICIAL START OF COPE THUNDER. PRIOR PLANNING MUST BE MADE FOR VEHICLES AND MAINTENANCE SPACES BEFORE THE EXERCISE STARTS. THIS SHOULD BE ONE OF THE MAJOR ITEMS ON THE ADVANCE PARTY CHECKLIST. ONCE THE EXERCISE STARTED SUPPORT WAS OUTSTANDING.

(4) VEHICLE SUPPORT. THE BUS SYSTEM USED BY THE AIR FORCE PROVIDED ADEQUATE TRANSPORTATION FOR THE FLIGHT CREWS AND ENLISTED PERSONNEL. THE POOLED VEHICLES (PICK-UP TRUCKS, VANS, ETC.) WERE CONTROLLED BY USAF JOB CONTROL. THE VEHICLES WERE USUALLY AVAILABLE TO INDIVIDUALS WHEN NEEDED. THE ADVANCE PARTY MUST MAKE ARRANGEMENTS FOR THE FOLLOWING VEHICLES AS A MINIMUM: ONE BUS/TRUCK FOR TROOP TRANSPORTATION, ONE PICKUP/VAN FOR PARTS RUNS, AND ALL EMBARK VEHICLES (FORKLIFTS, CRANES, ETC) FOR PACKUP LOADING AND UNLOADING.

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MAG-15, FPO San Francisco 96602
080100Z Sept 1977
MWA-6

Operation Plan 5-77 (Operation T-Bolt Breakout)

Ref: (a) CG 1st MAW 290720Z Aug 77 (c)
(b) WgO P3000.4
(c) WgO 3710.5C
(d) NWIP-10
(e) OPNAVINST 3710.7H
(f) OPNAVINST 5442.2

TIME ZONE: 2

Task Organization:

VMFA-251(-) LtCol ALLINDER Jr.

VMFA-251 DET ALPHA Major COWELL

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces

(1) Marine Aircraft Group 15 provides planning and liaison for the deployment.

(2) Headquarters and Maintenance Squadron 15 provides IMA support for the deployment.

(3) Marine Aerial Refueling/Transport Squadron 152 provides aerial refueling support during the flight ferry from MCAS Iwakuni to NAS Cubi Point. In addition, VMGR-152 provides logistical support as required during the deployment.

(4) Marine Aircraft Group 12 provides TA4F/A4M adversary support during the deployment.

TAB 9

(5) NAS Cubi Point provides air base facilities during the deployment.

(6) Military Airlift Command provides airlift support from MCAS Iwakuni to NAS Cubi Point.

(7) Marine Fighter Attack Squadron 251 Detachment ALPHA rejoins VMFA-251 at NAS Cubi Point on or about 24 September, 1977. Upon linkup, Task Organization becomes VMFA-251.

2. MISSION

VMFA-251 deploys to NAS Cubi Point, P.I. for fighter weapons and fighter intercept training during the period 21 September - 9 October, 1977.

3. EXECUTION

a. General. As directed by reference (a), and in accordance with references (b) through (f), VMFA-251 deploys to NAS Cubi Point during the period 21 September - 9 October, 1977 with 11 F4J aircraft. The Squadron will conduct FW and FI missions during the deployment. Annex A (Air Operations).

b. VMFA-251

(1) Provides operational planning and liaison between all units concerned.

(2) Deploy to NAS Cubi Point, P.I. with 11 F4J aircraft, 30 officers and 194 staff and enlisted Marines (includes IMA Augmentation). Annex A (Air Operations) contains details of FW/FI flights planned during the deployment.

(3) Flight ferry 6 F4J's to NAS Cubi Point via aerial refueling on or about 21 September, 1977. Annex A (Air Operations).

(4) Deploy Advance Party to NAS Cubi Pt on or about 20 September, 1977. Annex B. (Logistics/Administration).

(5) Airlift remaining personnel and equipment by MAC flight. Annex B. (Logistics/Administration).

(6) Submit MOVREPS/COMM SHIFT/ARRIVAL Reports in accordance with reference (d), as necessary.

(7) Submit daily flight data to MAG-15. The primary means of transmittal will be Naval message.

(8) Submit 3M data in accordance with reference (f).

(9) Submit pre/post daily flight schedule data to the 1st MAW TACC. The primary means of transmittal will be by telephone.

(10) Submit weekly SITREP to MAG-15. The primary means of transmittal will be by message.

(11) Submit daily STARR report to MAG-15. The primary means of transmittal will be by telephone.

(12) Submit after action report via chain of command as required by reference (b).

c. Coordinating Instructions

(1) The code name for this deployment is T-Bolt BREAKOUT.

(2) D Day, H Hour is 202300Z Sep 77 (210800I Sep 77).

(3) See Annex A for Operational information.

(4) See Annex C for Intelligence information.

4. ADMINISTRATION AND LOGISTICS. Annex B (Administration and Logistics).

5. COMMAND AND SIGNAL

a. Signal. The primary means of communication will be Autovon.

b. Command.

(1) 21 Sept - 25 Sept. VMFA-251(-), LtCol ALLINDER Commanding.

(2) 9 Sept - 24 Sept. VMFA -251 Det ALPHA, Maj COWELL Det. OIC.

(3) 25 Sept - 9 Oct. VMFA-251, LtCol ALLINDER Commanding.

M. W. ALLINDER Jr.
Lieutenant Colonel, U. S. Marine Corps
Commanding

ANNEXES:
A. Air Operations
B. Administration and Logistics (To be published separately.)
C. Intelligence

DISTRIBUTION: Distribution A plus
CG FMFPAC
CG 1st MAW
CO MAG-15
CO MAG-12
CO H&MS-15
CO H&MS-12
CO VMGR-152
CO NAS CUBI POINT
CO MCAS IWAKUNI

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MAG-15, FPO San Francisco 96602
080100Z Sept 1977
MWA-6

Annex A (Air Operations) to Operation Plan 5-77

Ref: (a) NATOPS Air Refueling Manual
(b) MCO P3500.8D (T&R Manual)
(c) WgO 3710.5C (ACM Training)
(d) MAG-15 310304Z AUG 77 (Refueler Request)
(e) MAG-15 310753Z AUG 77 (Range Request) NOTAL

Time Zone: Z

1. SITUATION

a. Enemy Forces. None

b. Friendly Forces. See paragraph 1.b of the basic plan.

2. MISSION. VMFA-251 deploys with 11 F4J's to NAS Cubi Point for FW/FI Training.

3. EXECUTION

a. Concept of Operations. On 21 September, 6 F4J aircraft depart MCAS Iwakuni via aerial refueling enroute to NAS Cubi Point. On 24 September, 5 F4J aircraft depart Clark AFB enroute to NAS Cubi Point. OpPlan 4-77 (Cope Thunder XI) refers. On 26 Sept - 9 Oct, VMFA-251 conducts FW/FI Training.

b. VMFA-251

(1) 21 Sept 77. Two serials of 3 F4J's depart MCAS Iwakuni enroute to NAS Cubi Point. The route of flight is shown in Appendix 1 and the timing is shown in Appendix 2. The crews involved are as depicted in Appendix 3. Reference (a) applies.

(2) 22 Sept 77. Maintenance Standdown.

(3) 23 Sept 77. Area fam flights.

(4) 24 Sept 77. VMFA-251 Det ALPHA moves from Clark AFB to NAS Cubi Point.

(5) 26 Sept - 9 Oct 77. Conduct FW/FI training in accordance with references (b), (c), (e) and (f).

c. Coordinating Instructions

(1) VMGR-152. Provides 2 KC130 tankers in support of F4J flight ferry missions on 21 September. Reference (d) contains mission specifics.

(2) MAG-12. Provides 2 TA4F's/A4M's(ACM configured) during the period 26 Sept - 9 Oct 77. Reference (e) contains mission specifics. Reference (f) NOTAL contains range and range times.

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Appendices

1. Flight Ferry Routes
2. Flight Ferry Crews
3. Enroute and Destination Airfield Data
4. Aircraft Schedules
5. Aircrew Ground Training

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Appendix 1 (Flight Ferry Route) to Annex A (Air Operations) to Operation Plan 5-77

Time Zone: Z

Ref: (a) NATOPS Refueling Manual
(b) MAG-15 310304Z AUG 77

1. General.

a. Six F4J aircraft will flight ferry to NAS Cubi Point on 21 September, 1977 in accordance with references (a) and (b). The route of flight is as follows:

(1) MCAS Iwakuni to NAS Cubi Pt.

CLIMB TO FL 310 TOJIMA PT (0+11) DRCT KAGOSHIMA (0+28) DRCT BONITO (0+42) DRCT DECENT PT (CH57 - 347/83) (1+05) DRCT ARCP (CH78 275/75) (1+08) DRCT EN AR (CH78 275/135) (1+21) LEVEL FL 310 (1+24) DRCT MIYAKO JIMA (1+44) DRCT GURNET (2+19) DRCT TINAPA (2+32) DRCT LAOAG (2+44) DRCT PORO PT (2+58) DRCT CUBI IAF (CH48 225/26 (3+15)

b. Ferry Configuration

(1) One 600 gallon centerline tank

(2) Two LAU-17's per aircraft

(3) Four LAU-7A's per aircraft

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TABS

A. Flight Ferry Navigation Data

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Appendix 2 (Flight Ferry Crews) to Annex A (Air Operations)
to Operation Plan 5-77

Time Zone: ~~Z~~

1. Aircrew Assignments

a. Serial #1

POKEY 701-1 LTCOL ALLINDER/MAJOR HAY
701-2 COL PAIGE/CWO-4 MASSEY
701-3 LT MARTHILJOHNI/LT FOLEY

SPARE AIRCREW- CAPT ADCOCK/LT HILL

b. Serial #2

POKEY 702-1 CAPT CALDERON/LT LARSEN
702-2 CAPT POSPISCHIL/CAPT SNOWDEN
702-3 CAPT LANNERT/LT SCHALK

* SPARE AIRCREW- MAJOR CADICK/LT HILL

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TO	LATITUDE LONGITUDE	TAS	MH#	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT	ETA ATE	ETA ATA	EST FUEL REQ ACT FUEL	FUEL FLOW	EST FUEL ACT FUEL LEFT	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
B62 TO TUG-PA	19°34N 121° 31'E	480	.85			1W	214	105	1131	0+13	2+32	1.3	6000	9.9		101	213	REPORTING POINT CH 84 121 R/111
B 62 TO IAOAG	18 24'N 120 38'E	480	.85			1W	216	70	1201	0+09	0+41	.9	6000	9.0		99	177	CH 83 IAQ
POINT	16 37'N 120°17E	480	.85		193	1W	194	109	1310	0+14	2+55	1.4	6000	7.6		99	88	CH 80 PPT
CUBI IAF CH 48 225/26		480	.85		189	0	189	134	1444	0+17	3+12	1.7	6000	5.9		48	26	CH 48 NKI
CLPT	14 48'N 120 16'E											1.0		4.9				FUEL RQD FROM MA TO CLARK 1AF=2900# C40/5

IWAKUNI - CUBI NAME DATE BUNO TIME OFF- TIME ON-

TO	LATITUDE LONGITUDE	TAS	MH#	GS	TRUE HDG	VAR	MAG HDG	DISTANCE LEG	DISTANCE TOT	ETE ATE	ETA ATA	EST FUEL REQ ACT FUEL REQ	FUEL FLOW	EST FUEL LEFT ACT FUEL LEFT	MIN BINGO FUEL	BINGO TACAN	DIST	REMARKS
ST, TAXI T/O	34°08'N 132°13'E											1.0		16.5				CH 35 NEU
YAMA 2 DEPT KUMA PT	33°37'N 132°53'E					6W	140	45	45	0+07	0+07	2.0		14.5		35	45	CH 35 140°/45NM
TOJIMA PT	33°11'N 132°22'E	480	.85			6W	231	31	76	0+04	0+11	.8	6000	13.7		35	57	CH35 179°R/57NM CH80 051°R/129NM FL 310
KAGOSHIMA	31°42'N 130°36'E	480	.85			5W	231	132	208	0+17	0+28	1.7	6000	12.0		35	70	CH 80 HKC
BONITO	33°00'N 129°50'E	480	.85			4W	206	110	318	0+14	0+42	1.4	6000	10.6		57	242	CH80 206°R/110NM CH78 025°R/166NM
DESCENT PT		480	.85			3W	229	180	498	0+23	1+05	2.3	6000	8.3		57	83	CH57 347°R/83NM CH78 285°R/64NM
W-179 ARCP	CH 78 275/75	280				3W	229	20	518	0+03	1+08	.3	IDLE	8.0		57	72	CH57 335°R/72NM
DROP PT END AR	CH 78 275/135	280				3W	275	60	578	0+13	1+21		MIL	17.0		57	112	CH57 305°R/112NM AIR REFUEL=12,000#
LEVEL 310					196	3W	199	18	596	0+03	1+24	.3		16.7		57	107	
MIYAKO JIMA	24°47'N 125°18'E	480	.85		196	3W	199	154	750	0+20	1+44	2.0	6000	14.7		57	166	CH 122 MYC
B62 to CURNET	21°00'N 122°33'E	480	.85			2W	217	276	1026	0+35	2+19	3.5	6000	11.2		101	178	REPORTING PT CH84 121°R/111NM CH116 151°R/116NM

REMARKS/CLNC

1. ALL FIGURES BASED ON NO WIND
2. IN EVENT OF 50KT HEADWIND - EFL AI CUBI IAF =4400#
3. FL 310 FUEL FLOW = 6000#/HR FOR FERRY
4. FL 200 FOR A/R
5. A/R = 12000 #

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Appendix 3 (Enroute and Destination Airfield Data) to Annex A (Air Operations) to Operation Plan 5-77

Time Zone: Z

1. The following is a list of destination and enroute airfields to include pertinent data extracted from the IFR Supplement.

a. NAF KADENA. 26° 46° N 127° 46° E GMT+9
ELEVATION: 146
RWY Length: 12,100'

RWY 05L MA1A BAK-12(B) BAK-13(B)
17° (OVRN) 1401' 3208'

BAK-13(B) BAK-12(B) RWY23R
3175' 1597'

RWY 05R MA1A BAK-11/12(B) BAK-12(B)
150'(OVRN) 1102' 2700'

BAK-11/12 BAK-12(B) MA1A RWY23L
2111' 1100' 36' OVRN

AERODROME REMARKS

Extensive jet and low level activity within 50NM. RWY 05L preferred runway. No visual references available on night traffic beyond end of runway 23L/R. Wind for each runway available from tower. Use extreme caution when taxiing; extensive vehicle traffic and construction. Rwy 05R-23L grooved beginning 500' from threshold both ends. Rwy 05L grooved 3100' and Rwy 23R grooved 1500', each begins 500' from threshold. All aircraft contact GND prior to engine start. Inbound aircraft expect extensive holding or diversion due to priority departures. VASI Touchdown PT Rwy 23R is 1050' Traffic pattern: 1700'MSL overhead 1200' rectangular. MIJI possible on UHF.

COMMUNICATIONS

TWR 315.8, 236.6
GND 275.8
APP 258.3, 254.8
METRO 344.6
CLNC 235.0

TACAN: ODY CHAN 57

NDB. 267.6 (AUX 3) - Controller will broadcast instructions on this freq if NORDO.

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
5R	200-3/4	400-$\frac{1}{2}$	800-2$\frac{3}{4}$
23L	200-$\frac{1}{2}$	500-1 $\frac{3}{4}$	800-2$\frac{3}{4}$

b. T'AI-NAN, TAIWAN. 22° 57'N 120-12'N GMT+8
Elevation: 53'
Rwy Length: 10,000'

Rwy 18 MA1A BAK-9(B) BAK-12(B)
(100'OVRN)(39' OVRN) (1500')

BAK-12B BAK-9B MA1A RWY36
(40'OVRN) (101'OVRN)

AERODROME REMARKS

CAUTION: Arpt located 10NM's, same rwy hdg. CAUTION-HI density student trng jet traffic. CAUTION-unsheduled high angle and high speed climbs to 15000'. CAUTION: 25' high rwy surveillance units E side of Rwy 18-36, 225' from centerline, 1000' from approach ends Tower has limited visibility of takeoff area. Tower and APP CON manned by CAF Controllers. Overrun does not meet USAF standards. FOD hazard in all areas.

COMMUNICATIONS
TWR 288.6,236.6
GND 275.8
APP 363.8,328.7

TACAN. TWS CH 101

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
18	500-1$\frac{1}{2}$	600-1$\frac{3}{4}$	600-2
36	300-3/4	400-1$\frac{1}{2}$	600-2

c. CLARK AFB. 15° 11'N 120° 33'E GMT+8
Elevation: 478'
Rwy LENGTH: 10,500'

RWY 02 MA1A/BAK-9 BAK 12(B)
(43'OVRN) (8') (1300')

BAK-13(B) BAK-12(B) BAK-9/MA1A RWY 20
(2516') (1231') (9') (41'OVRN)

AERODROME REMARKS

All VFR aircraft inbound to CLARK AFB contact DTD 15 min prior to arrival. Manuevering W of field prohibited due to high terrain. Mt Arayat, 3366'MSL 11NME of field. No straight-in VFR approach to Rwy 02 beyond 5NM due to close proximity of BASA AB 12NM S of field. Copter operations on close proximity to approach end Rwy 02-20. Runup engines only on N or S runup pads, parallel taxiway, cross taxiway 4 and the Leghorn. Special VFR not authorized for F/W aircraft 15 min advance notice required for MA-1A/BAK-9. MA-1A/BAK-9 disengaged on approach end and activated on departure end active runway. Both BAK-13's fully activated at all times. BAK-13 approach end engagement Rwy 20 15 min prior notice required. Traffic pattern: Rectangular 1500' MSL 360° overhead 2000' MSL. Rwy 20 Left traffic, Rwy 02 Right traffic. Clsd traffic pattern: do not [illegible] 200' MSL.

COMMUNICATIONS

TWR	236.6
GND	275.8
APP	261.4
Clnc Del	265.6
METRO	344.6

TACAN: CRK CH99
AUX REC: 267.6(Aux 3) for App Con and Tower as backup

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
02	200-½	700-1¾	700-2¼
20	200-½	300-1¾	600-2

d. CUBI POINT NAS. 14°48'N 120°16'E GMT+8

Elevation: 55'

Rwy Length: 9000'

Rwy 07	E-28B (1495')	E-28(B) (2874')		E-28(B) 4170'	E-28(B) 1177'

AERODROME REMARKS

Cat C Airfield. Right traffic Rwy 25. Do not overfly fuel pier located 060° 1NM from approach end Rwy 25. Do not overfly Naval Magazine below 5000' located 1½ NM SSE approach end Rwy 07. Do not overfly city of Olongapo below 2500' in VFR conditions. Extensive carrier jet training in Cubi terminal area. Field carrier landing practice in progress 0600-2400 local daily.

COMMUNICATIONS

TWR	340.2
GND	360.2
APP	291.4
CLNC DEL	238.2
METRO	344.6

TACAN. NCI CHAN 77

APPROACH WEATHER MINIMUMS

RWY	PAR	TACAN	CIRCLING
7	300-1	500-1½	800-2

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Appendix 4 (Aircraft Schedules) to ANNEX A (Air Operations) to Operation Plan 5-77

Time Zone: Z

1. Aircraft schedules from 21 September to 9 October.

21 Sept — 6 Sorties/19.8 Hours

A/C	T/O	LAND	TOS	AREA	MISSION
3	0800	1115	N/A	N/A	FERRY JOI TO CUBI
3	1300	1615	N/A	N/A	FERRY JOI TO CUBI

22 Sept — NO FLIGHTS

23 Sept — 6 Sorties/9.0 Hours

2	0800	0930	N/A	N/A	AREA FAM
2	1130	1300	N/A	N/A	AREA FAM
2	1500	1630	N/A	N/A	AREA FAM

24 Sept — 5 Sorties/7.5 Hours

3	0800	0930	N/A	N/A	FERRY CLARK TO CUBI
2	0830	1000	N/A	N/A	FERRY CLARK TO CUBI

25 Sept — NO FLIGHTS

26,28 AND 30 Sept — 12 Sorties/12 Hours

2	0700	0800	0715-0745	J-1	2v1 TA-4
2	0745	0845	0800-0830	J-1	2v1 TA-4
2	1100	1200	1115-1145	J-1	2v2 T-38
2	1145	1245	1200-1230	J-1	2v2 TA-4
2	1600	1700	1615-1645	J-1	2v2 T-38
2	1645	1745	1700-1730	J-1	2v2 TA-4

27 AND 29 Sept — 12 Sorties/13 Hours

2	0700	0800	0715-0745	J-1	2v1 TA-4
2	0745	0845	0800-0830	J-1	2v1 TA-4
2	1100	1200	1115-1145	J-1	2v2 T-38
2	1145	1245	1200-1230	J-1	2v2 TA-4
2	1600	1700	1615-1645	J-1	2v2 T-38
2	1930	2100	1945-2045	J-1	FI

1 Oct — 4 Sorties/4 Hours

2	0700	0800	0715-0745	J-1	2v2 TA-4
2	0745	0845	0800-0845	J-1	2v2 T-38

A/C	T/O	LAND	TOS	AREA	MISSION
2 Oct			NO FLIGHTS		
3,5,AND 7 Oct				12 Sorties/12Hours	
2	0700-0800	0715-0745	J-1	2v1	TA-4
2	0745-0845	0800-0830	J-1	2v1	TA-4
2	1100-1200	1115-1145	J-1	2v2	T-38
2	1145-1245	1200-1230	J-1	2v2	TA-4
2	1600-1700	1615-1645	J-1	2v2	T-38
2	1645-1745	1700-1730	J-1	2v2	TA-4
4 AND 6 Oct				12 Sorties/13 Hours	
2	0700-0800	0715-0745	J-1	2v1	TA-4
2	0745-0845	0800-0830	J-1	2v1	TA-4
2	1100-1200	1115-1145	J-1	2v2	T-38
2	1145-1245	1200-1230	J-1	2v2	TA-4
2	1600-1700	1615-1645	J-1	2v2	T-38
2	1930-2100	1945-2045	J-1	FI	
8 Oct				4 Sorties/4Hours	
2	0700-0800	0715-0745	J-1	2v2	TA-4
2	0745-0845	0800-0830	J-1	2v2	T-38
9 Oct			NO FLIGHTS		

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Appendix 5 (Aircrew Ground Training) to ANNEX A (Air Operations) to Operation Plan 5-77

Time Zone: Z

1. The following is a list of ground training to be conducted prior to and during the deployment.

TITLE		INSTRUCTOR	DATE/TIME
1500	PHILIPPINES SURVIVAL	CAPT LANNERT	14 Sept/1500
1545	SAFETY	CAPT WAGNER	14 Sept/1545
1300	CUBI DET BRIEF	MAJ CADICK	20 Sept/1300
1900	NATOPS	CAPT MARR	27 Sept/1900
1930	RECOGNITION	CAPT PERROTT	27 Sept/1930
1300	SAM TACTICS/PENETRATION	CAPT POSPISCHIL	1 Oct/1300
1400	F-4 TRIVIA TEST	CAPT POSPISCHIL	1 Oct/1400
1900	CAPS	CAPT POSPISCHIL	6 Oct/1900
2000	AAA	LT SCHALK	6 Oct/2000
1300	FORTRESS LIGHTNING BRIEF	MAJ CADICK	8 Oct/1300
1400	NATOPS	CAPT MARR	8 Oct/1400

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Annex C (Intelligence) to Operation Plan 5-77

Ref: (a) OPNAVINST 5510.1E
(b) Fleet Intelligence Center POC 21:JRT:dam 3131

Time Zone: Z

1. Summary of Enemy Situation

a. This annex and all appendices are to be utilized as necessary for the tactical movement of VMFA-251 to Cubi Point NAS and tactical operations during Operation Breakout and Operation Fortress Lightning Although declared enemy forces are not a factor, dissident factions in the Philippines with anti-U.S. philosophies are abundant. Any aircrew in a SERE environment should consider all non-US personnel as hostile and make every effort to avoid contact until SAR efforts by US forces are effected.

b. The area of operation for this exercise will be a route from MCAS Iwakuni to Cubi Point NAS and local working areas of Cubi Point NAS.

c. For the duration of the operation all intelligence procedures will be in accordance with reference (a) and applicable FMFPAC, CINCPAC, CINCPACFLT, 1st MAW and Operation Breakout/Operation Fortress Lightning directives.

2. Report sightings of any military vessels and/or aircraft, MIJI incidents and RHAW cockpit indications to the S-2 Officer, either written or verbally, as soon as possible.

3. The terrain of the
wilderness with an abundance of wildlife, plants and fish. All aircrews should familiarize themselves with reference (b) and other applicable publications concerning JUNGLE survival. Consideration should be given to personal equipment maintained in aircrew members' survival vests. Additional survival information will be the subject of aircrew training prior to departure and will not be included in this annex.

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Appendix
1. Climatology
2. Astronomical Data

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Appendix 1 (Climatology) to ANNEX C (Intelligence) to Operation Plan 5-77

Ref: (a) U. S. Naval Weather Service Environmental Detachment, Cubi Point, R. P. Report for September/October 1977

Time Zone: Z

1. Purpose. To provide climatology data for military flight operations.

2. Area Covered. This appendix covers Cubi Point NAS, R.P.

3. Climatology Summary for September 1977

Average Monthly Max Temp(F)	87
Average Monthly Min Temp(F)	75
Monthly Mean Temp(F)	81
Absolute Max Temp(F)	96
Absolute Min Temp(F)	70
Relative Humidity(0400LST)(%)	91
Relative Humidity(1300LST)(%)	75
Monthly Average Precipitation(Inches)	22.82
Average # Days with Precipitation	21
Prevailing Wind Direction/Speed	SW/6kts

Field Conditions

VFR	96.2%
IFR	03.8%
Below Min	01.2%

4. Climatology Summary for October 1977

Average Monthly Max Temp(F)	89
Average Monthly Min Temp(F)	76
Monthly Mean Temp(F)	82
Absolute Max Temp(F)	98
Absolute Min Temp(F)	69
Relative Humidity(0400LST)(%)	88
Relative Humidity(1300LST)(%)	65=
Monthly Average Precipitation(Inches)	9.08
Average # Days with Precipitation	12
Prevailing Wind Direction/ Speed	ENE/6kts

Field Conditions

VFR	99%
IFR	1%
Below Min	0%

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Appendix 2 (Astronomical Data) to ANNEX C (Intelligence) to Operation Plan 5-77

Ref: (a) U.S. Naval Weather Service Environmental Detachment, Cubi Point. R. P. Report for September/October 1977

Time Zone: Z

1. Purpose. To provide astronomical data for military flight operations

2. Area Covered. This appendix covers Cubi Point NAS, R. P.

3. Astronomical Data for September 1977

DATE	SUNRISE	SUNSET
20	0548	1757
21	0548	1756
22	0548	1756
23	0548	1755
24	0548	1754
25	0548	1753
26	0548	1753
27	0548	1752
28	0548	1751
29	0548	1750
30	0548	1750

4. Astronomical Data for October 1977

DATE	SUNRISE	SUNSET	DATE	SUNRISE	SUNSET
01	0549	1749	16	0550	1737
02	0549	1748	17	0551	1738
03	0549	1747	18	0551	1738
04	0549	1747	19	0551	1737
05	0549	1746	20	0551	1736
06	0549	1746	21	0552	1736
07	0549	1745	22	0552	1735
08	0549	1744	23	0552	1735
09	0549	1743	24	0552	1734
10	0549	1743	25	0552	1734
11	0550	1742	26	0553	1733
12	0550	1741	27	0553	1732
13	0550	1741	28	0553	1732
14	0550	1740	29	0553	1732
15	0550	1739	30	0554	1731
			31	0554	1731

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UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15, 1st MAW, FMFPac
FPO San Francisco 96602

3:JRC:nl
3120
28 Nov 1977

From: Commanding Officer
To: Commanding General, First Marine Aircraft Wing

Via: Commanding Officer, Marine Aircraft Group 15

Subj: Post Deployment Report for Training Deployment at Nas Cubi, PT. Republic of the Philippines.

Ref: (a) WgO P3000.4
(b) VMFA-251 041012Z Nov 77
(c) CTU SEVEN NINE PT THREE PT SIX 251036Z Oct 77

Encls: (1) Administrative and Personnel Remarks
(2) Intelligence Remarks
(3) Operations and Training Remarks
(4) Logistics and Embarkation Remarks
(5) Maintenance and Material Remarks

1. In accordance with reference (a), enclosures (1) through (5) constitute the Post Deployment Report for the period 21 September to 23 October 1977 at NAS Cubi, R. P. Reference (b) was submitted to MAG-12 in accordance with reference (c).

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TAB 9

Administration and Personnel Remarks

PREDEPLOYMENT

1. Some IMA augmentees were not identified until 1 to 3 days prior to departure resulting in problems for orders, pay, mail, and manifesting aboard transport aircraft. Some augmentees arrived in Cubi without the knowledge of VMFA-251. A review of previous Post Deployment Report reveals that this same problem of late assignment of augmentees has occurred on virtually every deployment for the past two years.

RECOMMENDATION: Assign augmentees by name, 21 days prior to departure for deployments.

2. Another consequence of item 1 was a continual changing/updating of passenger manifests for the MAC flights with some personnel assigned to 2 flights.

RECOMMENDATION: Same as 1.

ON DEPLOYMENT

1. Personnel deployed

a.	Naval Aviators	14
b.	Naval Flight Officers	13
c.	Aviation Ground Officers	3
d.	Marine SNCO	43
e.	Marine Enlisted	150
f.	Marine Augmentees	27
	TOTAL	250

2. The squadron office spaces were situated on the carrier pier side of NAS Cubi, and the CTF 77 OIC was most hospitable in affording as much space as was available. However, the CO, XO, 1stSGT and entire Admin Shop were packed into one 12x15 space through which all S-2/S-3 traffic (including all aircrews reporting for mission briefs had to pass).

RECOMMENDATION: Deploy additional tents to Cubi for high density exercises such as Fortress Lightning.

3. Supply support of NAV/MC forms by NSD was insufficient.

RECOMMENDATION: To preclude additional embark loads for the squadron, recommend that stock of these forms be maintained routinely at NS Subic and/or NAS Cubi Point.

ENCLOSURE (1)

4. Transportation was not routinely available due to the high density of personnel involved in Fortress Lightning. The Squadron was located on the opposite side of the field, and was the farthest removed from the Comm Center, Base Operation, and Headquarters facility.

RECOMMENDATION: That one vehicle be dedicated to S-1/S-2 functions, message runs, mail pickup, etc. commencing the day of arrival.

5. The service provided by the NS Subic Bay disbursing officer was noteworthy, especially his travel section, and a letter of appreciation was delivered in recognition of the morale boosting efforts on behalf of VMFA-251.

6. Staff Sergeants were required to live in open 80-man squad bays at NAS Cubi Point.

RECOMMENDATION: That negotiation between USMC/USN officials resolve berthing of Marine Staff Sergeants.

7. The Special Services provided by Admiral Vilcline at NAS Subic/ NAS Cubi Point are the most outstanding of any base ever visited by VMFA-251: 57 Special Services activities provided at a cost of $3,500,000 per year.

RECOMMENDATION: That MCAS Iwakuni study the feasibility of incorporating some of the Special Services activities found at NAS Cubi Point such as beaches, parks, go-carts.

Intelligence Remarks

1. The S-2 section deployed to NAS Cubi with one Officer, one Staff NCO and two enlisted personnel. The Intelligence packup arrived on the 24th September.

2. The Intelligence section presented 9.0 hours of training to Squadron Aircrews during the deployment. Areas concentrated on were: Aircraft Recognition; Rules of Engagement; SAM/AAA threat; Electronic Warfare; and SERE/SAR training.

3. VMFA-251 received a TRE administered by representatives from 1st MAW from 4 Oct to 7 Oct 1977. The intelligence section received an overall grade of noteworthy(attached). Squadron aircrews scored an overall average of 89% on Aircraft Recognition and 98% on Rules of Engagement.

4. During Operation Fortress Lightning, all Intelligence briefings and debriefings were conducted by MAG-12. VMFA-251 provided one Intelligence clerk to MAG-12 as a member of the Combat Operations Center staff.

5. Due to the severely limited work spaces, stringent security procedures for classified material had to be utilized. Access to S-2 and CMOC was limited and only one entrance to the area was available through the CO/XO/1stSGT/S-1 office.

RECOMMENDATION: None.Field Duty.

6. The MAG-12 Combat Operations Center handled all flight briefs and debriefs during Operation Fortress Lightning. However, due to the nature of the exercise and communications problems, encountered, concise and updated briefs were not provided to aircrews. No real scenarios was presented. Briefings consisted of administative procedures and issue of authenticator cards. Aircrews really did not know "how the war was going".

RECOMMENDATION: That "real world" threats be briefed all aircrews for employment of "real world" tactics to/from target areas.

UNITED STATES MARINE CORPS
1st Marine Aircraft Wing
Fleet Marine Force Pacific
FPO San Francisco 96602

3:TLD:tld
3500
12 OCT 77

From: Air Combat Intelligence Officer
To: Officer In Charge, Training and Readiness Evaluation

Subj: After-Action Report, TRE VI-77

Ref: CG, 1st MAW ltr 3:LHK:meb over 3500 dtd 29 SEP 77

1. In accordance with the reference, a written report is submitted.

2. The following is an intelligence evaluation of VMFA-251, conducted during the period 4-7 OCT 1977 at NAS Cubi Point, R.P.

3. RECOGNITION TRAINING AIDS

a. Discussion: Squadron possessed outstanding training material, and did have posters and charts up on walls for daily exposure to enemy equipment. Files and folders were neat and easy to retrieve.

b. Recommendation: None.

4. RECOGNITION TRAINING

a. Discussion: Squadron spends approximately 15 hours monthly on training. All personnel indicated a very positive attitude toward the intelligence effort, and several persons were noted reading through the intelligence references for personal enrichment during lax periods.

b. Recommendation: None.

5. RECOGNITION TESTING

a. Discussion: Squadron scored 89% overall average on aircraft recognition test.

b. Recommendation: That squadron shoot for 100% average. A couple of low marks brought the average down. Squadron is capable of even higher average.

6. INTELLIGENCE BRIEFING ON ENEMY SITUATION

a. Discussion: Squadron researched scenario well and presented very good, concise briefs.

b. Recommendation: None.

7. SAR AND SAFE AREA BRIEFINGS

a. Discussion: Squadron briefers made the necessary clear distinction between scenario play and real-world situation.

b. Recommendation: None.

8. DEBRIEFINGS

a. Discussion: Squadron completed debriefings in a timely manner, and reports were concise and legible.

b. Recommendation: None.

9. SECURITY

a. Discussion: Squadron was extremely conscious of security measures and was well-prepared to enforce these measures if necessary. No security violations were noted.

b. Recommendation: None.

10. OVERALL EVALUATION

a. Discussion: Squadron was outstanding in all areas. Basic intelligence procedures were understood by all personnel. Briefings to the aviators included only the necessary, relevant points. The S-2 shop was extremely well-organized. All were familiar with formats for photo requests and map orders. Very complete files were on hand to cover almost any intelligence requirement that might arise in a combat situation. Overall squadron interest in the intelligence effort was outstanding.

b. Recommendation: That squadron shoot for a 100% average on aircraft recognition testing.

T.L. DILLON

Operations & Training Remarks

1. VMFA-251 deployed to NAS CUBI PT., R.P. with eleven F-4J aircraft during the period 21 September to 23 October for Squadron training and participation in Exercise Fortress Lightning. A total of 169 sorties and 297.9 flight hours were flown during the deployment including flight ferry movement. One hundred and fifty-eight initial syllabus completions and ninety-five refresher completions were accomplished.

2. Flight Ferry Movement

a. The movement to NAS CUBI PT. was a combination of cross country flights and inflight refueling. On 8 September 1977, five F-4's were launched to CLARK AFB to participate in Cope Thunder XI. Intermediate refueling was conducted at KADENA AFB, Okinawa. The flight arrived at CLARK AFB the same day. On 19 September, two aircraft were launched from MCAS IWAKUNI and recovered at KADENA AFB. One of these aircraft returned to MCAS IWAKUNI on 20 September and the other aircraft proceeded to CLARK AFB the next day. Five aircraft were launched on 21 September, a three plane in the morning and a section in the afternoon, for inflight refueling. Due to the tanker cancelling for maintenance problems, the first three aircraft refueled at KADENA AFB and proceeded to NAS CUBI PT., arriving the same day. The section launched in the afternoon, successfully rendezvoused with the tanker. During the aerial refueling, the basket on the starboard drogue snapped off the hose and remained attached to the aircraft's refueling probe. The section diverted to KADENA AFB. Post flight examination revealed no aircraft damage. The section proceeded to NAS CUBI PT. and arrived the same day. On 24 September, after the completion of Cope Thunder, six aircraft launched from CLARK AFB and recovered at NAS CUBI PT.. A total of 26 ferry sorties were flown for 51.1 hours.

b. Recovery of the aircraft to MCAS IWAKUNI commenced on 22 October. Enroute refueling was not available. KADENA AFB was used as an enroute support base. Five aircraft launced on 22 October from NAS CUBI PT. and arrived at MCAS IWAKUNI the same day. Five aircraft launched on 23 October from NAS CUBI PT. and arrived at MCAS IWAKUNI the same day. One aircraft was programmed for corrosion control by the Fleet Aircraft Western Pacific Repair Activity (FAWPRA). (See Enclosure (5)). A total of 20 ferry sorties were flown for 34.3 hours in returning to MCAS IWAKUNI.

3. Ground Training

a. Comprehensive, regularly scheduled ground training is essential and not something peculiar to deployments. Meaningful training was accomplished prior to and during the Philippine deployment. As a result the Squadron scored an overall average of 93% on the written exams given during the Training/Readiness Exercise(TRE). (See paragraph 5a of Enclosure(3). The following lectures were given to all aircrew:

SUBJECT	DATE	TIME	INSTRUCTOR
PHILIPPINE MEDICAL	7 SEP	.5	DR. DONAHUE
PHILIPPINE SURVIVAL	7 SEP	1.0	CAPT LANNERT
PHILIPPINE SURVIVAL	10 SEP	1.0	CAPT LANNERT
COURSE RULES	26 SEP	1.0	CUBI ATC
RECOGNITION	27 SEP	.5	CAPT FERROTT
EM COM	27 SEP	1.0	CAPT POSPISCHIL
ROE	28 SEP	.5	CAPT FERROTT
ICAO	28 SEP	.5	CAPT FUCHS
SAMS	28 SEP	.5	CAPT POSPISCHIL
VID'S	29 SEP	1.0	CAPT SNOWDEN
TACMAN REVIEW	29 SEP	.5	CAPT POSPISCHIL
NATOPS	30 SEP	.5	CAPT MARR
RECOGNITION	30 SEP	.5	CAPT FERROTT
MISSILES	30 SEP	1.0	CAPT POSPISCHIL
AIM-9	2 OCT	.5	LT MARTHILJONI
AIM-7	2 OCT	.5	LT FOLEY
RECOGNITION	3 OCT	.5	CAPT FERROTT
ROE	3 OCT	.5	CAPT FERROTT
RECOGNITION TEST	5 OCT	.5	1ST MAW
ROE TEST	5 OCT	.5	1ST MAW
NATOPS TEST	5 OCT	.5	1ST MAW
TACMAN TEST	5 OCT	.5	1ST MAW
EA6-B	12 OCT	1.0	CAPT JOHNSON
FORTRESS LIGHTENING	12 OCT	1.0	LT SHIPMAN

b. Of the lectures given by aircrew, five were given by aircrew not associated with ground training by billet. Allowing all aircrews to give lectures proves invaluable in raising the overall combat awareness of VFA-251 Pilots and RIO'S.

4. Fighter Weapons/Fighter Intercept Training (26 SEP-3 OCT 77)

a. The primary objective of this phase was to obtain advanced aircrew training for six squadron aircrews and to re-establish a firm foundation for the remaining aircrews as a prelude to more advanced fighter weapons flights. Five aircrews had just completed fighter weapons training at Cope Thunder and one aircrew had recently completed the ACT(I) syllabus prior to the NAS CUBI PT. deployment. The remaining aircrews had flown minimally due to squadron assets being dedicated to the above two commitments.

b. Initially the Squadron had planned to fly dissimilar FW against the H&MS-12 TA-4F's. The TA-4's arrived at NAS CUBI PT. on schedule, but the H&MS-12 support had not yet arrived from CLARK AFB where it had been staged in support of VMA-214 and Cope Thunder. When the support equipment and personnel arrived, the TA-4's were committed to training their aircrews for TAC(A) and to providing observer aircraft to support VMA-214's TRE scheduled for 2-5 October. This eliminated scheduling any FW flights with H&MS-12.

c. Liaison with the Operations section of CTF-77 Beach Detachment resulted in preliminary planning to fight their 2 F-14's during the 26-30 September time period. However, before any sorties could be flown, the F-14's were grounded until 1 October due to monetary constraints associated with the end of the fiscal year.

d. VMA-214 was contacted and dissimilar FW was begun for mutually beneficial training. During 26 September through 3 October, the Squadron flew 14 FW sorties against the A-4M: 10 (2v1, 2 (2v2), 1 (1v1), and 1 (1v2). Also during this period, VMFA-251 flew 9 BAM (1v1 similar) flights. A total of 28 initial syllabus completions and 18 refresher completions were flown for a total of 24.4 hours. FW/FI training conducted during the TRE and Fortress Lightning is addressed in paragraphs 5 and 7 respectively.

RECOMMENDATION: That a minimum of 35 A4M/TA-4F sorties be fragged per month in support of each VMFA. The aircrews from VMFA-251 and VMA-214 benefitted appreciably from this phase of training. The A4M is a worthy adversary and more nearly simulates MIG series aircraft than any other aircraft readily available to 1st MAW F-4 crews.

5. Training/Readiness Exercise (4-7 OCT 77)

a. 1st MAW team arrived to conduct a Training/Readiness Evaluation (TRE) of VMFA-251. At the time the Squadron had 10 of 11 aircraft NORS and was experiencing a NORS rate for October of over 60%. The first day involved aircrews taking four written exams in the morning with the afternoon free for maintenance and planning for the next day's flights. The results of the aircrew testing is as follows: Peacetime Rules of Engagement 98%; F-4 Tactics 93%; NATOPS 92%; and Aircraft Recognition 89%. The Squadron attained an overall average of 93%.

b. The second day consisted of a combination fighter attack escort (FAE) in the morning, ground attack in the afternoon and fighter intercepts that night. The FAE mission was the first mission to be observed by the TRE evaluators and was conducted while VMA-214 flew a low level strike mission for the completion of their TRE. The strike force, consisting of 8 A4M's and 4 F-4's were to rendezvous, using EMCON procedures, with the bomber force as they completed a low level route and then escort them from the feet wet position to the target located at Scarborough Shoals. The F-4's reached the rendezvous point at the pre-briefed time and began orbiting to await the bomber force. As the A-4's passed over the rendezvous point, they had a tally-ho on the fighter and gave the pre-briefed EMCON signal for tally-ho which consisted of a series of 3 UHF MIKE-clicks to be answered by 2 UHF MIKE-clicks. The 3 clicks given by the strike leader were answered by 2 clicks from someone within the bomber force. The F-4's did not have a tally-ho on the bombers. Thinking everyone had sight, the strike leader proceeded toward the target. About 2 minutes after the rendezvous time, the F-4 leader broke radio silence and verified that the bomber force had departed the rendezvous point and was proceeding toward the target. The F-4's were able to catch the bombers and proceed out to meet to engage the sizeable aggressor force of 2 F-14's, 4 A-7E's and 1 E-2 evaluator that was in the vicinity of the target.

c. By maintaining their speed and only taking shots at random tail-pipes, the 4 F-4's obtained six shots on the A-7's and three shots on the F-14's. No shots were obtained on the A4M's prior to dropping their bombs on target. The aerial engagement lasted a total of 4 min. 30 secs. from the first shot until successful bug-outs by the F-4's. During that time, a total of 18 shots were against the aggressors with one shot against the F-4's. Of the 18 F-4 shots, eleven were FOX-1 and seven were FOX-2. This break down is included only to show how VTAS has tremendously increased the F-4's lethality in the FW arena. Recovery at NAS CUBI PT. by all aircraft was uneventful.

d. Although the strike was successful, the obvious weakness was unreliable rendezvous procedures under EMCON conditions. The strike leader's decision to continue toward the target with no fighter escort, although tactically unsound, was probably prompted by the fact that he also was under-going a TRE and had a target time to meet.

e. A section of F-4's was launched in the afternoon of the second day to conduct ground attack missions on Wildhorse creek. Each aircraft carried six MK-82's. After take off, one of the F-4's had to abort his mission and return to NAS CUBI PT. with a BLC malfunction. The second aircraft flew a planned low level route and dropped six bombs on target at the assigned target time. The low level route was briefed and flown by an experienced crew and the bombs were direct hits on the target. However, a break down in checklists/switchology procedures caused the bombs to be dropped unarmed. There is no substitute for a challenge and reply approach to checklist. This one mission was the extent of the ground attack training accomplished during the TRE. Subsequent attempts to schedule Wildhorse Creek were unsuccessful.

f. In the evening of the second day, a section of F-4's was launched on a night fighter intercept mission. The bogey type and numbers were unknown prior to take-off. The section was able to accomplish it's mission of intercepting and identifying an unknown aircraft although there was one search only radar between the two F-4's. Although most fighter crews are capable of completing similar missions with degraded radar, all would probably request to be replaced in the line up by an aircraft with full system capability. Again the extremely high NORS rate of over 60% adversely affected radar availability.

g. The third day of the TRE consisted of a maneuvering missile shoot against 2 BQM's. Three F-4's were launched with one sparrow and one sidewinder per aircraft. All sparrows had tuned instantly and noteworthy remarks were received from the Wing Avionics Officer and the Wing Ordnance Officer. A fourth F-4 carried a sidewinder only. The four F-4's were accompanied by a fifth Squadron F-4 with a TRE evaluator acting as a safety observer.

Six of the 8 participating aircrew had never fired a missile before and none of them had participated in a maneuvering shoot. However, the crews were all fully trained due to the stringent policy of flying FSC aircraft only for the past 18 months. Flying normal combat tactics, the aircraft had three radar presentations against the BQM's and 3 AIM-7's were fired. There was one AIM-7 Bula-Bula. There were

also 2 AIM-9's fired with one resulting in a [illegible]. The sidewinder only equipped aircraft had a generator failure and returned to NAS CUBI PT. on the wing of the aircraft that had the sparrow hangfire, which also carried an unexpended sidewinder. The recovery of all aircraft was uneventful.

Only through an unprecedented performance by the ordnance and avionics sections did the Squadron complete the five plane (one umpire) tactical missile shoot with three days notice. A feat made possible only by the strict FSC policy.

h. The last day of the TRE was scheduled for FW and a debrief. In the early morning, two sections were launched twenty minutes apart to fight a TA-4 flown by one of the TRE evaluators. The first section had worked together as a section for six months and had two radar systems. The result was 3 quick engagements ending in 3 quick kills, each time off the VID, without the Bogey having both aircraft in sight. The Bogey was denied any shots on the F-4's.

The second section was comprised of experienced aircrews who were not normally crewed together as individual crews or as a section. In addition there was one "search only" radar. Although they used the same tactics as the first section, the same timing was not present. The result was shots by and against the F-4. F-4 crews must be teamed and, where possible, sections should be stable units. The requirement for fully operational radar systems for the F-4 to survive in air-air engagements was clearly demonstrated.

In the late morning of October 7, three F-4's were launched against two TA-4's with a briefed "Wild Card" TA-4 to enter the fight. The ensueing 3v3 resulted in the three TA-4's and one F-4 being shot.

That afternoon, the TRE evaluators conducted a thorough debrief of each area of the Squadron observed.

During the TRE, the Squadron completed thirty initial syllabus completions on nineteen sorties for a total of 25.6 hours.

6. Fighter Weapons/Intercept Training (8 Oct - 12 Oct 77)

a. During the five day period between the completion of the TRE and the beginning of Fortress Lightning, the Squadron concentrated on Fighter Weapons Training using the H&MS-12 TA-4's as adversaries. The Squadron was able to fly some FW flights in the more realistic arena where the bogies out number the fighters. The following FW flights were recorded: 1 (3v2), 3 (2v3), 2 (2v1), 2 (1v1) and 1 (1v1v1).

b. Two night fighter intercept sorties were flown and one instrument refresher flight.

c. On 12 October, the Squadron flew two night TPQ missions to meet a wing event.

d. During this phase of training the squadron recorded 19 initial syllabus completions and one refresher completion flown on fourteen sorties for a total of 14.7 hours.

7. Fortress Lightning (13 Oct - 21 Oct 77)

a. VMFA-251 commenced flight operations in support of Fortress Lightning on 13 October 1977 and terminated the last flight on 21 October 1977. The mission of the Squadron was to establish and maintain air superiority for the "Blue Forces" by flying combat air patrols, intercepting and identifying unknown aircraft in the amphibious objective area (AOA), and scrambling aircraft from strip alert. In accomplishing the assigned mission, VMFA-251 aircrews gained both syllabus and non-syllabus training.

b. Syllabus training was primarily fighter intercepts. Each vector received from the controlling agency was toward an unknown bogey employing unknown tactics. Through the use of the aircraft radar system, F-4 visual identification tactics and GCI information, each vector resulted in either a kill or the identification of a friendly aircraft. On several occasions, F-4's would net 7-8 intercepts in a single mission.

Syllabus training was also accomplished through the many air refueling evolutions, both day and night, that allowed the fighters to remain on station longer.

c. Non syllabus training was realized mainly in the areas of communications and control. Each flight conducted in the AOA required the use of challenge and reply authentication and use of shackle codes. Many air refueling evolutions were conducted under EMCON conditions. The difficulty of maintaining control while employing COMSEC was apparent.

d. On 20 October, six F-4's participated in two "alpha" strikes as fighter escorts until reaching the target. At that time, each aircraft made several simulated bombing runs on assigned targets and then proceeded to the tankers and on to CAP stations. Although not a realistic scenario, it did demonstrate the versality of the F-4.

e. During Fortress Lightning, the Squadron flew a total of 66 sorties and stood strip alert for 59 hours. Six sorties were launched from strip alert. There were 77 initial syllabus completions and 78 refresher syllabus completions flown for a total of 147.8 hours.

8. Training Summary

a. VMFA-251's Philippine deployment was unique from the standpoint of aircrew training. Not since the Squadron's deployment to MCAS YUMA in April 1977 have the aircrews been required to employ the multi-mission F-4J in all its roles simultaneously.

The TRT and Exercise Fortress Lightning required the Squadron to operate at a tempo similar to combat. During Fortress Lightning, the Squadron was striving to meet the number of commitments that normally would be borne by at least 2 F-4 Squadrons. Fortress Lightning utilized the F-4's of this Squadron in one of the more demanding roles; that of establishing and maintaining air superiority. However, the rules of engagement were too restrictive for meaningful training to be realized. If it had not been for multiple short range contacts, the

VID training completed would not have been recorded. The scramble practice, unknown intercepts, EMCON aerial refueling and COMSEC training were excellent.

b. The maneuvering missile shoot provided the participating aircrews with some of the most realistic and rewarding training. Although certainly not a waste of time or money, the stabilized missile shoot can not compare with the maneuvering shoot for realism and satisfaction. Even a hangfire is not a loss when the aircrew has successfully maneuvered their aircraft into a position to squeeze the trigger.

c. The ground training received during the deployment was excellent.

d. The overall impression of the TRE evaluators in the area of training was that VMFA-251 has a solid training program, has demonstrated an above average knowledge of systems and tactics and needs to continue striving to improve.

e. Despite the training received during Cope Thunder, the September ACT(I) program, the missile shoot and Fortress Lightning; the average Pilot and RIO CRP for the September- October time period decreased - 2.1% and - 5.1% respectively. This loss is attributed to lost CRP in Fighter Weapons, Fighter Intercepts and Ground Attack.

f. Recommendation: That each VMFA squadron receive an average 42 FI, 42 FW, and 28 GA Sorties per month to maintain CRP at a given level.

Logistics/Embarkation Remarks

PREDEPLOYMENT

1. The Air Force (ALCE) Team arrived only 10 hours before the first proposed departure. This negated any assistance normally provided by an ALCE Team and which was requested in the Airlift Request. The Squadron S-4 was never advised of the ALCE Team's date of arrival, or their status as to being behind schedule.

2. Because the ALCE Team arrived without proper equipment (I.E. Radios) they could not use the MAG-15 staging area, causing the already complete and staged loads to be moved across the field to the Air Frieght area. The Air Force ALCE Team Leader informed MAG-15 Embark that departure times were being changed for the next day. VMFA-251 S-4 was never advised of this, either informally or by message. This caused much hardship among the passengers affected by the late notice. The problem, was aggravated by the aircraft arrived the next day at the previously announced times.

3. The Air Force informed Squadron Embark that some cargo would have to be bumped from the first aircraft because there were additenal Air Force crews on this aircraft. It was then discovered that these crews had nothing to do with the actual move, and were transients to Clark AFB. Embark then informed the Air Force that the Marine Corps was paying for the time on these aircraft, and the people would have to find another way to Clark AFB.

RECOMMENDATION:

1. That Squadrons be kept abreast of developments concerning the movement and ALCE Team status.

2. That the moving unit be immediately notified of an impending change of departure times if the Air Force is not required to stay with the originally planned departure times. All moves should be monitored by a knowledgeable S-4 representative to preclude such incidents as mentioned in 3. above.

3. That the Marine FSSG Team assist and direct segments of the move such as hazardous materials, weights, balances and loading procedures. The FSSG Team did an outstanding job and greatly complemented the ALCE Team.

RETURN TO MCAS IWAKUNI

1. MAG-15 assets were OPCON to MAG-12 for Fortress Lightning. However, some initial planning was made by MAG-12 without any MAG-15 personnel notified or present. The first meeting MAG-15 personnel were asked to attend was held 19 Oct, two days before the start of the move. This was too late to schedule planning conferences.

load plans were available, but were not addressed until after Air Force representatives arrived, again too late.

2. Such items as box lunches, ground support vehicles and the handling of customs were to be handled through MAG-12(per meeting of 19 Oct 77).

When the phone calls were made for this support, MAG-12 personnel knew nothing of this, and told MAG-15 personnel to arrange for them on thier own. An example of this problem occurred the first night when MAG-15 was told to stage their aircraft load at 1900. A crane was to be there to move a 10,000lb generator. When a call was made at 2230 to inquire about the crane, it was learned that the crane would not be available that night.

RECOMMENDATIONS:

1. That a meeting of all movement units be held at least 20 days prior to the move. That initial meetings appoint persons to coordinate such items as lunches, ground support vehicles, customs and the manifesting of Marines and cargo; that each unit assign one man to the controlling unit to act as a liaison between his unit and the controlling unit. Informal liaison should be held with the Air Force to get some indications of arrival and departure times, along with the type of aircraft to be used. Load plans are necessary and should be submitted to the control center 4 days prior to the move for approval or changes.

2. That correct load plans and sequences be distributed to the moving units 2-4 days prior to the move.

3. That Flow Charts concerning aircraft arrival and departure time, show time, staging and loading times, and aircraft status be kept in the control center, that these charts be initialled by the coordinators for lunches, customs, manifest, loading and ground support vehicles as each item is done. This would show a status of each load. Each unit moving could check these boards instead of wasting time calling and looking for people to ascertain this information.

Maintenance and Material Remarks

1. The Squadron deployed to NAS Cubi PT in two increments. Five F-4's departed from MCAS Iwakuni on 21 Sept. The remainder of the Squadron which was participating in Exercise Cope Thunder at Clark AFB, arrived at NAS Cubi PT on 24 Sept 1977.

2. The Squadron was scheduled to conduct normal flight operations during the initial period at NAS Cubi PT from 26 Sept 77 to 12 Oct 77 before participating in Exercise Fortress Lightning. Flight operations at NAS Cubi PT were supported by MAG-15. The MAG-15 Supply Pack-up which was deployed to Cope Thunder was re-deployed to NAS Cubi PT. Avionics van support was repositioned from Clark AFB to NAS Cubi PT also.

3. Initially, operations at NAS Cubi PT were slow because of the reorganization and movement of support elements. Special attention and efforts were exerted by MAG-15 Supply and Maintenance personnel at Cubi PT to reduce the "spool-up" time to place this Squadron into full operation and overcome a significantly high NORS. Rate (Highest Daily NORS Rate during October;75.7%; October cummulative NORS Rate: 48.1%.)

4. The Ground Support Equipment provided at NAS Cubi PT was the best encountered by this Squadron. H&MS-15 and AIMD personnel were extremely co-operative. There was sufficient ready GSE available at all times. The repair and preventive maintenance procedures followed by support GSE personnel contributed greatly to a successful GSE section.

5. During the Squadron's TRE, the Ordnance Division loaded the following ordnance.

12 MK 82 Bombs
3 AIM 7 Sparrow Missiles
4 AIM 9 Sidewinder Missiles

The following was expended:

6 MK 82 Bombs
2 AIM 7 Sparrow Missiles
2 AIM 9 Sidewinder Missiles

In addition, captive AIM 9 and AIM 7 missile simulators were loaded on all Fortress Lightning flights. Close liaison was maintained between the Squadron Ordnance Officer and NAS Cubi PT Ordnance Officer. His cooperation proved to be extremely helpful.

6. Squadron aircraft underwent corrosion inspections by a COMFAIRWESTPAC corrosion control expert. One aircraft was inducted into Fleet Aircraft Western Pacific Repair Activity (FAWPRA) for complete

paint stripping, corrosion treatment and repainting. The projected completion date is 12 December 1977.

7. AIMD power plants provided the squadron with two J79 engines and the working spaces, expertise, and parts support to rebuild the engines. This outstanding cooperation was the significant factor that made dealing with these engine difficulties a smooth, efficient process.

RECOMMENDATIONS:

1. That a liaison party, composed of members from all required support elements be in place at the deployed site, a minimum of one week prior to the beginning of deployed training operations. Though liaison was conducted in the areas of Maintenance and Supply, continuity was lost by not having liaison personnel remain at NAS Cubi Pt to initially guide operations. A full week prior coordination would allow complete intergration into station support elements prior to the arrival of support equipment and supplies.

2. That squadrons be equipped with two RFI MSTS at all times. The squadron rates two Missile Station Test sets. Prior to the Missile Shoot at NAS Cubi Pt., only one was available. During initial station testing, the MSTS went "down". A second was brought in by the Group Avionics Chief, but it also went "down" on the morning of the Missile Shoot. Satisfactory results were obtained by interchanging parts from both testers.

3. That secure spaces be provided for flight equipment. Because of a general lack of working space, flight equipment was required to share an unventilated space with one Marine squadron and two Navy squadrons. Not only was this arrangement extremely crowded but also near impossible to keep secure. Some items of custom personal flight equipment were stolen. VTAS components are extremely valuable and difficult to replace.

UNITED STATES MARINE CORPS
[illegible]

[illegible]

25 Nov 77

From: Commanding Officer
To: Commanding Officer, Marine Aircraft Group 12
Via: Commanding Officer, Marine Aircraft Group 15

Subj: COPE JADE DELTA, After Action Report

Ref: (a) MAG-12 0811338 Nov 77 (NOI)

Encl: (1) COPE JADE "D" After Action Report

1. In accordance with reference (a), enclosure (1) is hereby submitted.

M. W. ALLINDER JR.

TAB 16

TOTALS	[illegible]	[illegible]	-12	[illegible]	-1	-2	[illegible]

2. Of the 24 sorties scheduled, 18 or 75% were cancelled primarily for weather; 2 sorties were cancelled primarily for aircraft availability; and 4 sorties (10.9 Hrs) were able to complete the mission.

3. Exercise operating costs $12,600.

4. Training accomplished: Syllabus X's 8, Refresher X's none, training code 165.

5. Cope Jade Delta and previous Cope exercises have command and control restrictions/delays due to locations of participating units: Air Forces Korea, COMSEVENTHFLT, and participating 1st MAW units. Specific command and control problems are: restrictions against landing in Korea for refueling, necessitating tankers, tanker areas, and good tanking weather; delays in receiving message traffic affecting next day or same day operations; lack of authority for direct liaison.

6. The following is a brief narrative of the Cope Jade Delta evolution.

a. On 8 Nov MAG-12 LOI was received tasking VMFA-251 to conduct CAS, CAS CAP, and Faker missions from MCAS Iwakuni and from Taegu Air Base. VMGR-152 was tasked to provide aerial refueling in the R-74 area. This concept of operations provided VMFA-251 with maximum operational flexibility.

b. On 9 Nov the Operation's Plan was written; aircraft were reconfigured; a Taegu maintenance detachment was formed; and a support package was requested.

c. On 10 Nov permission to place the maintenance detachment at Taegu Air Base was denied, and permission to refuel at Taegu or Osan on a daily basis was not forthcoming, requiring air refueling for mission completion.

d. On 15 Nov, events 703 & 704 were reduced to one ship missions due to tanker availability (one KC130 with one hose) and the requirement to refuel other 1stMAW aircraft. Two events were cancelled by the Air Force because of target weather. On 16 Nov events 701 & 702 were unable to tank in the R-74 due to weather & returned to the base. The Air Force cancelled two events due to target weather. On 17 Nov the morning launches were cancelled due to weather.

e. On 13 Nov IP and target data for FAKER routes was transmitted. This information was received at the squadron on the afternoon of 15 Nov.

f. An OPIMMEDIATE message was transmitted on 14 Nov changing the TOT for the following day. The message was received by the Comm Center on 14 Nov, but was not passed to the squadron until the next day after the aircraft were airborne.

7. Recommendations. Problem areas are apparent in the narrative above. The following recommendations are presented.

a. That permission be obtained to position maintenance detachments at OSAN or TAEGU for future Cope exercises in Korea.

b. That a squadron representative attend all planning conferences to improve communications and reduce confusion regarding mission specifics, routes, targets and control procedures/communications.

c. That the OCE and the Comm Center ensure delivery of all exercise messages ASAP upon receipt.

8. Summary. Cope Exercises familiarize Marine aircrews with the geographical area of the Korean DMZ and increase CRP, although at a high cost in hours per sortie under the present concept of mission execution. Retaliatory capability is enhanced should hostilities occur in Korea. Familiarization with the AFK command and control system operating in the Republic of South Korea is another important factor. Lastly, operations in Korea present opportunities to conduct ground attack training for Japan based tactical squadrons. Due primarily to bad weather, Cope Jade Delta was not fully beneficial. Early planning, approval and the ability to operate from Korea, as necessary, would improve future Cope Exercises.

UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15, 1st MAW, FMFPac
FPO San Francisco Ca 96602

3:DLD:rlg
3500
5 Dec 1977

From: Commanding Officer
To: Commanding Officer, Marine Aircraft Group 15

Subj: Cope Strike 78-4, After Action Report

Ref: (a) MAG-15 190255Z Nov 77 (LOI)

Encl: (1) Cope Strike 78-4 After Action Report

1. In accordance with reference (a), enclosure (1) is hereby submitted.

M. W. ALLINDER JR.

TAB 11

3500
5 Nov 1977

Cope Strike 78-4 After Action Report

1. Exercise Sorties/Hours

DATE	SORTIES SCHED	SORTIES FLWN	MISSION CNX REASON A/C AVAIL	HRS FLWN
30 Nov	4	2	2	6.0
2 Dec	4	6		13.6
TOTALS	8	8	2	19.6

2. Exercise Flight Costs. $12,348

3. Training Accomplished: Syllabus X's 12, Refresher X's 4.

4. Command and Control Problems.

a. The tankers launched late for mission 2128 on 1 Dec. This plus 2 bad hoses caused event 2128 to be over 20 minutes late for TOT.

b. The target weather for event 2128 was marginal with clouds, low visibility and snow on the ground. The Korean FAC(A) Apollo 26 was unable to mark the target or talk the F-4's onto the target. The U. S. ground FAC "GROUNDHOG" came up and talked the section down to successful ordnance delivery.

5. The following is a summary of the main events of the Cope Strike 78-4 evolution.

a. On 30 Nov, Mission 2106, a section of F-4J's proceeded to Nightmare Range in the P-518 area of Korea and delivered their MK76 ordnance. Pre and post strike refueling was utilized by all aircraft.

b. On 30 Nov, Mission 2108 was cancelled due to aircraft availibility.

c. On 1 Dec all missions were cancelled due to target weather and were rescheduled for 2 Dec.

d. On 2 Dec, Mission 2126, a section of F-4J's proceeded to Nightmare Range and delivered their MK77 ordnance. Pre strike refueling was utilized and the section recovered in Osan as scheduled.

e. On 2 Dec, Mission 2128, a section of F-4J's proceeded to Nightmare Range and delivered their MK77 ordnance. Pre strike refueling was utilized. However, the tanker was 40 minutes late on station and had two bad hoses resulting in the F-4's being over 20 minutes late for TOT. The section diverted to Osan Air Base because of

ENCLOSURE (1)

poor target weather and inability of Apollo 26 to talk the section onto the target, resulting in excessive loiter time over the target. A U. S. ground FAC "GROUNDHOG" talked the F-4's down to successful ordnance delivery and the section diverted to Osan due to Bingo fuel.

6. Summary. Cope Strike 78-4 was successful. This success can be attributed to good refueling area weather, tanker availability, and good communications between all units involved. The ground attack training and familiarization with the geographical area of Korea has increased the combat readiness of this unit. Ground attack mission in the DMZ during winter months with low visibility and snow is a realistic scenario and pointed out the requirements for colored smoke, for alternate means of marking targets, and for ground FAC's.

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Operation Order 6-77 (Operation BLT X 1-78)

Ref: (a) Operation Order Exercise SSANG Yong VII /BLTX 1-78

TIME ZONE: I

Task Organization:

VMFA-251(-) LtCol ALLTHEY

VMFA-251 Det Bravo Capt DOYLE

1. SITUATION.

a. Enemy Forces. See ref (a).

b. Friendly Forces. See ref (a).

2. MISSION

VMFA Det B flight ferries to Taegu Air Base, Korea and participates in BLTX 1-78 from 9 Dec to 15 Dec 77.

3. EXECUTION

a. General. As directed by reference (a), VMFA-251 Det Bravo will deploy with six aircraft to Taegu Air Base to participate in BLTX 1-78.

b. Marine Aircraft Group 15. Provide coordination, planning, liaison and supply support for VMFA-251.

c. Headquarters & Maintenance Squadron 15. Provide AIR support as requested in Annex C.

d. Taegu Air Base. Provide air support for VMFA-251 Det Bravo in accordance with the interservice agreement.

e. Marine Fighter Attack Squadron 251 Det B.

(1) Provide operational planning for squadron participation in the exercise.

(2) Deploy to Taegu Air Base with 17 Officers and 29 SNCO's and enlisted between 6-8 Dec 1977 via government air.

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TAB 12

(3) Flight ferry six aircraft to Taegu Air Base on 8 Dec 77.

(4) Det Bravo participates in BLTX 1-78 from 8 Dec to 15 Dec 77.

(5) F-4J aircraft redeploy to MCAS Iwakuni on 15 Dec 77.

(6) Det Bravo returns to MCAS Iwakuni on 16 Dec 77.

(7) Submit After Action Report within 30 days of ENDEX.

f. Coordinating Instructions

(1) Code name for this exercise is BLT 1-78.

(2) L Day, H hour is 080900 Dec 77.

(3) See ANNEX B for Intelligence Information.

4. ADMINISTRATION AND LOGISTICS. See Administration and Logistics ANNEX D.

5. COMMAND AND SIGNALS

a. Signal. The primary means of communication between Det Bravo and VMFA-251 will be autovon telephone.

b. Command. VMFA-251 Det Bravo, Capt [illegible] is officer in charge.

M. W. [illegible]
Lieutenant Colonel, U. S. Marine Corps
Commanding

ANNEXES:
A. Air Operations
B. Intelligence
C. Maintenance
D. Administrative/Logistics

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Annex A (Air Operations) to Operation Plan 6-77

Ref: (a) Operations Order Exercise SSANG YONG VII/BLT-X 1-78
(b) CTU 76.0.2 conf. msg 30 04 43 Z Nov 77

Time Zone: I

1. SITUATION

a. Enemy Forces. See Ref (a)

b. Friendly Forces. See Ref (a)

2. MISSION VMFA-251 Det Bravo provide [illegible] aircraft aircraft for simulated CAS missions in support of BLT-X [illegible].

3. EXECUTION

a. General During the period of 11-[illegible] December VMFA-251 Det Bravo will conduct air operations as directed by references (a) and (b).

b. VMFA-251 Det Bravo

(1) 8 December 1977. Three sections of F-4J aircraft depart [illegible] enroute to Taegu Air Base. Flight ferry crews are designated in Appendix 1.

(2) 9-10 December 1977. Conduct [illegible] and [illegible] training.

(3) [illegible] December. Conduct simulated CAS missions in support of [illegible] as directed in Ref (b).

(4) [illegible] Return flight ferry from [illegible] Air Base to MCAS Iwakuni.

c. Participating Aircrews. Participating aircrews and rocket numbers are contained in Appendix 2.

M. W. ALLINDER Jr.
Lieutenant Colonel, U. S. Marine Corps
Commanding

Appendices
1. Flight Ferry Crews
2. Participating Aircrews and Rocket Numbers
3. Air Field Descriptions
4. Aircraft Schedules

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Appendix 1 (Flight Ferry Crews) to Annex A (Air Operations) to Operation Plan 6-77

Time Zone: I

1. Aircrew Assignment

a. Section #1
POINT 1-1 LTCOL ALLINDER/CAPT FUCHS
1-2 CAPT PERROTT/CWO-4 MASSEY

b. Section #2
POINT 2-1 LT MAISHILLOCH/CAPT LARSEN
2-2 CAPT LANNERT/CAPT SNOW

c. Section #3
POINT 3-1 CAPT MARRAH/CAPT HILL
3-2 LT GUSTIN/CAPT BLEK

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Appendix 2 (Aircrews andRocket Numbers) to Annex A (Air Operations) to Operation Plan 6-77

Time Zone: I

1. Participating Aircrews and Rocket Numbers.

Pilot	Rocket Number
LTCOL ALLINDER	01
CAPT WAGNER	02
CAPT [illegible]	03
CAPT [illegible]	04
CAPT [illegible]	05
LT GUERIN	06
LT [illegible]	07
LT [illegible]ILJONI	08

AIC'S

CAPT DOYLE
CAPT FUCHS
CAPT [illegible]LOW
CAPT [illegible]DEN
LT SCHALK
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

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[illegible]-2

Appendix 3 (Airfield Description) to Annex A (Air Operations) to Operation Plan 6-77

Time Zone: I

1. The following airfield data is provided for [illegible] Air Base.

[illegible] Air Base. 35 53'N 128 40'E GMT + 9

RWY Length 9000'

RWY [illegible] MOD BAK-12(B) _______ BAK-12(B) [illegible]-1A RWY 31
([illegible] OVRN) (1314') (17[illegible]') [illegible]0' OVRN

REMARKS: [illegible] traffic - left traffic at [illegible]

Communications:
App Cont 3[illegible].3, 267.6
Tower 365.0
Gnd Cont 27[illegible].8
TACAN [illegible] CH 125

[illegible] The following divert airfield data [illegible] provided for Korea operations.

[illegible] Air Base 37 05'N 127 02'E GMT+9

[illegible]

[illegible] (MOD) BAK-12(B) BAK-1[illegible] _______
([illegible]) ([illegible]) ([illegible])

_______ BAK-[illegible] BAK-12(B) MA-1A [illegible] RWY [illegible]
(2[illegible]') ([illegible]) (50' OVRN)

REMARKS: [illegible] with hung or unsafe ordnance, declare [illegible] emergency.

Communications:
App Cont [illegible]
Tower [illegible]
Gnd Cont 30[illegible]
Dep Cont 234.3
App Cont 268.3
[illegible] Post 349.4
TACAN OSN CH. 94

Kunsan Air Base   35° 54'N 126 3[illegible]'E [illegible]

RWY length 9000'

RWY 17 MA-1A (MOD)   BAK-12(B)   BAK-[illegible](B) ________
(51'OVRN)   (1402')   ([illegible]10')

________ BAK-13(B)   BAK-12(B)   MA-1A (MOD) RWY 35
(2491')   (1392')   (5[illegible]' OVRN)

REMARKS: All transit aircraft contact ground control prior to engine start. Left hand traffic RWY 17, right hand traffic RWY 35.

Communications:
App Cont   [illegible]9
Tower   [illegible]7.6, 236.6
Gnd Cont   275.8
Dep Cont   [illegible]
TACAN KEY C. 75

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Appendix 4 (Aircraft Schedules) to Annex A (Air Operations) to Operation Plan 6-77

Time Zone: I

1. Aircraft Schedules for VMFA-251 Det Bravo

A/C	T/O	LAND	TOS	AREA
9 December				**6 Sorties**
2	[illegible]	0930	0830-0900	R-79
2	1315	1430	1330-1415	R-79
2	1515	1630	1530-1615	R-79
10 December				**6 Sorties**
2	0745	0900	0800-0900	R-74
3	1145	1300	1200-1300	R-74
11 December				**8 Sorties**
4	[illegible]	0825	0720-0800	ACA
2	[illegible]	0845	0740-0820	ACA
2	[illegible]	1300	1200-1300	R-74
12 December				**8 Sorties**
4	[illegible]	0825	0720-0800	ACA
2	[illegible]	0845	0740-0820	ACA/R-81
2	[illegible]	1300	1200-1300	R-81
13 December				**8 Sorties**
1	[illegible]	[illegible]	0830-0900	R-81
2	[illegible]	1040	0900-1000	ACA
3	[illegible]	1310	1200-1300	ACA
2	[illegible]	1400	1300-1330	R-81
14 December				**6 Sorties**
2	0840	[illegible]	0900-1000	ACA
2	1140	[illegible]	1200-1300	ACA
12	TBA	TBA	N/A	RETURN JCI

15 December 4 Sorties

A/C	T/O	LAND	TOS	AREA
2	0730	0900	0800-0830	R-566
2	0800	0930	0830-0900	R-566

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Annex B (Intelligence) to Operations Order 6-77

Ref: (a) Operation Order Exercise SSANG Yong VII BLT X 1-78

TIME ZONE: I

1. SITUATION

a. Enemy Forces. See ref (a)

b. Friendly Forces. See ref (a)

2. Military Sightings. Report sightings of any military vessels and/or aircraft as soon as practical to the S-2 Officer, either written or verbally.

3. Miscellaneous

a. Wing Order 03510.3 directs peace time rules of engagement.

b. Kneeboard cards carrying instructions for reporting MIJI and EHAW indications will be provided by S-2 prior to each mission.

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ATTACHMENTS
1. Korea Climatology
2. D + M
3. Astronomical Data

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Appendix 1 (Korean Climatology) to Annex B (Intelligence) of Operation Order 6-77

Ref: (a) Operations Order Exercise SSANG Yong VII/BLT X 1-78

TIME ZONE: I

1. The following is a summary of the Climatology for the Taegu area during December.

Taegu AB Korea (K-2) - Climatology for December

TEMPERATURES:

ABSOLUTE MAXIMUM	61°F
MEAN MAXIMUM	39°F
MEAN	30°F
MEAN MINIMUM	20°F
ABSOLUTE MINIMUM	-1°F
[illegible] R. H. 0500	75%
[illegible] R. H. 1400	56%

PRECIPITATION:

AVERAGE AMOUNT		.80"
GREATEST AMOUNT IN 24 HOURS		2.20"
MAXIMUM AMOUNT		2.70"
MINIMUM AMOUNT		.05"
MEAN NUMBER OF DAYS	.01"	4
MEAN NUMBER OF DAYS	.50"	.5

SNOW:

AVERAGE AMOUNT		4"
MAXIMUM AMOUNT		26"
GREATEST AMOUNT IN 24 HOURS		22"
MEAN NUMBER OF DAYS	.01"	2
MEAN NUMBER OF DAYS	.50"	1

WIND:

AVERAGE DIRECTION	N
AVERAGE SPEED	05
MAXIMUM SPEED	35

CLOUD COVER:

MEAN CLOUD COVER (TENTHS) 4

WEATHER CONDITIONS:

Mean No. of Days With

Thunderstorms	0
Fog	13

CEILING VERSUS VISIBILITY:

Percent of hours With:

Ceiling 3000 feet and Visibility 3 miles 10%

Ceiling 1000 feet and Visibility 2 miles 5%

WIND CHILL:

MEAN	24°F
ABSOLUTE MINIMUM	-62°F

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Appendix 2 (Escape & Evasion) to Annex B (Intelligence) of Operation Order 6-77

TIME ZONE: I

1. Should an aircrew eject over South Korea he will be confronted with the following major hazards: survival in rugged mountains terrain and survival in winter weather. In all cases the survivor must make his way toward lower ground, and when reaching a valley, follow its floor or the course of a stream downward to inhabited areas. Ridgetops throughout South Korea vary in height above the valley floors, from 500 feet to 2500 feet. Every accessible valley contains at least some transitory habitation for agricultural purposes, stock grazing, timber operations, etc. If required to descend a sheer cliff and no practical detour is available, the survivor must take care to choose a route that will provide adequate hand and footholds, and avoid traversing loose or rotten rock which might give way or initiate a rockslide. Use a rope or line if possible, and remember that when traveling through strange, rugged terrain, it is never wise to sacrifice caution for speed. If the survivor is use to living at or near sea level it may take a day to acclimatize.

--

2. Generally, it is better to head south and west to reach lower elevations which contain the majority of the population. This would not be true of course, if the survivor is able to estimate his position as being nearer the east coast or to a settlement. South Korea affords the survivor an abundance of water, food, and protective materials, while the hazards of insects, animals and disease are little greater than those prevailing in certain areas of the United States.

3. Things to Remember

(1) The major hazards facing the survivor in South Korea are travel through rugged terrain, extremes of winter weather, and danger of disease.

(2) In mountainous terrain the survivor should travel slowly and carefully.

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Lieutenant Colonel, U. S. Marine Corps
Commanding

[illegible]

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Appendix 3 (Astronomical Data) to Annex B (Intelligence) to Operation Order 6-77

Ref: (a) Operation Order Exercise SSANG Yong VII/DLT X 1-78

TIME ZONE: I

1. Purpose. To promulgate astronomical data pertinent to flight operations.

2. Astronomical Data

TAEGU

DECEMBER	SUNRISE	SUNSET
7	0747	1711
8	0747	1712
9	0747	1713
10	0747	1714
11	0747	1715
12	0746	1716
13	0746	1717
14	0746	1719
15	0745	1720
16	0745	1721

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Annex C (Maintenance Annex) to Operation Order 6-77

Ref: (a) Operation Order Exercise SSANG Yong VII / BLT X 1-78

TIME ZONE: I

1. SITUATION

a. Enemy Forces. See ref (a)

b. Friendly Forces. See ref (a)

2. MISSION

VMFA-251 organizational maintenance department will provide six aircraft for participation in BLT X 1-78 and a maintenance component for Det Bravo at Taegu Air Base.

3. EXECUTION

a. General. Provide 29 Marines with appropriate maintenance MOS's for Det B to depart 6 Dec for Taegu, Korea. Be prepared to service and repair six F-4J. VMFA-251 (-) provide additional aircraft, parts and support as required.

b. Det Bravo

(1) Depart MCAS Iwakuni 6 Dec.

(2) Upon arrival Taegu Air Base establish organizational maintenance capability.

(3) Be prepared to receive four F-4J's at 0945 local on 8 Dec 77 and two F-4J's at 1615 local on 8 Dec 77.

(4) Be prepared to launch and recover six sorties per day 9 - 15 Dec.

c. VMFA-251 (-)

(1) Launch six F-4J's to recover at Taegu Air Base on 8 Dec.

(2) Provide additional aircraft as required.

(3) Recover Taegu aircraft on 15 Dec.

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[redacted]

d. [redacted]

(1) Maintenance Officer is Capt J. TURNER.

(2) Capt J. TURNER is authorized to certify aircraft safe for flight for the duration of this detachment.

(3) MAG-15

(a) Provide supply packup to accompany Det Bravo.

(b) Provide sufficient supply personnel to manage supply packups.

(c) Provide requested GSE and sufficient personnel to maintain requested equipment.

M. W. ALLINDER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

ATTACHMENTS
1. Personnel Deployed
2. Ground Support Equipment
3. Aviation Support Material

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Appendix 1 (Personnel Deployed) to Annex C (Maintenance Annex) of Operation Order 6-77

TIME ZONE: I

1. THe following is the list of maintenance personnel comprising Det Bravo.

WORK CENTER	NO.
Maintenance Control	2
Flight Line	3
Tool Room	1
GSE	1
Hydraulics	2
Seat Shop	2
Flight Equipment	1
Q. A.	1
Com Nav	2
Electricians	2
Ordnance	4
Power Plants	2
Material Control	1
Metal Shop	2
Radar	1
Material Section	2
TOTAL ENLISTED	29
Ordnance Officer	1

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Lieutenant Colonel, U. S. Marine Corps
Commanding

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Appendix 2 (Ground Support Equipment Requirement) to Annex C (Maintenance Annex) of Operation Order 6-77

TIME ZONE: I

1. The following is a list of GSE and Test equipment required for Det Bravo.

NOMENCLATURE	QTY
NCPP 105	2
NITROGEN CART	2
NC-10	2
A[illegible] - 64	1
HIGH AIR COMPRESSOR	1
[illegible] CART	1
[illegible] WEAPONS TRAILER	1
20 TON JACKS	4
LOW AIR COMPRESSOR	1
[illegible]	2
[illegible] STAND	1
[illegible] STAND	1
[illegible]/ARM 21	1
AN/[illegible]-50 A	1
[illegible] DEHYD PMP	1
[illegible] DIG VOLTMETER	1
[illegible]	1
AN/[illegible]-18B	1
AN[illegible] - 54	2

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Appendix 3 (Aviation Support Requirements) to Annex C (Maintenance Annex) of Operation Order 6-77.

TIME ZONE: I

1. The following is a list of support material and plant facilities required at Taegu Air Base.

(a) JP-5 120,000 GALS
(b) LOX 90 GALS
(c) MO GAS 500 GALS
(d) NITROGEN 1,000 CuFt
(e) Flight line spaces for 6 F-4Js
(f) Hangar space for 2 F-4Js.
(g) A minimum of 2 quonset huts or equivalent working space and a Class A telephone.

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Lieutenant Colonel, U. S. Marine Corps
Commanding

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Annex D (Administration/Logistics) to Operation Plan 6-77

Ref: (a) Operation Plan Exercise SSANG Yong VII/BLT X 1-78

TIME ZONE: I

1. SITUATION

a. Enemy Forces. See ref (a)

b. Friendly Forces. See ref (a)

2. MISSION

a. VMFA-251 Det B will deploy to Taegu Air Base in support of BLT X 1-78.

b. Concept of Administrati /Logistics Operations

(1) Det Bravo will depart MCAS Iwakuni on 6 Dec 77. Upon arrival Taegu Air Base initiate liaison with the 6168th ABS for logistics support and billeting.

(2) Morale, Recreation and Welfare

(a) The granting of liberty will be at the discretion of the Officer in Charge.

(b) Exchange services are available; however ration cards are required. Ration cards will be issued upon arrival.

(c) Annual leave will not be authorized. Emergency leave will be in accordance with applicable directions.

(d) The Maintenance Officer for Det B that each Marine has the following clothing in his possession: Winter Service ALPHA (1), Field Jacket with liner, all utilities, two pair of boots, gloves, all workcocks, toilet articles, sewing kit, letter writing gear, long johns (drawn from material), foul weather gear and sea bag.

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(3) Military Law, Discipline and Order

(a) The Republic of Korea enforces some of the strictest drug laws in the Western Pacific area. All members of Det Bravo will be briefed on the consequences of drug related offenses.

(b) Curfew hours are from 2400 to 0400 daily.

(c) Customs inspection will be performed upon arrival and departure along with a Taegu orientation lecture.

(4) Mail will be sorted and delivered to Det Bravo via government air to the Det OIC.

(5) Messing and Billeting is available.

(a) Messing

MEAL	MON-FRI	SAT-SUN	COST
BKFST	0530-0730	0630-1000	$.55
LUNCH	1100-1300	———	$1.15
SUPPER	1630-1830	1200-1700	$1.15
* MIDS	2300-0100	2300-0100	$1.15

* UNIFORM REQUIRED

(b) Billeting. E5 and below will pay $1 per day. Officers and SNCO's will pay $2 per day.

(6) Medical facilities are available at Taegu Air Base. All Marines will have a current shot record upon departing MCAS Iwakuni.

(7) Finance and Disbursing. Advance Pay Dim has been requested. Regular pay checks for 15 Dec will be delivered at Taegu.

(8) Transportation to Taegu will be via C-130 on 6 Dec 1977.

(a) The uniform will be utilitarian

(b) All baggage will be hand carried.

(c) A shuttle bus runs on the hour from 0600 to 2400.

(d) Official taxis are available by calling 4350.

(e) Base exchange taxi is available by calling 4544.

(f) Two M-715's will be provided by the 6168th ABS.

(2) Key Telephone Numbers

Fire Reporting	117
Medical Aid	
Emergency/After Duty	4433
Duty Hours	4616
Security Police	4433
Passenger Terminal	4623
Billeting Manager	4548/4852
Commander 6168 ABS	4427
First Sergeant	4384
Consolidated Club	4319
Dining Hall	4619/4877
Base Taxi	4544

M. W. ALLINDER JR.
Lieutenant Colonel, U. S. Marine Corps
Commanding

UNITED STATES MARINE CORPS
Marine Fighter Attack Squadron 251
Marine Aircraft Group 15, 1st MAW, FMFPac
FPO San Francisco 96602

3:DLD:nl
3500
5 Dec 1977

From: Commanding Officer
To: Commanding Officer, Marine Aircraft Group 15

Subj: BLT X 1-78 After Action Report

Ref: (a) Operation Order Exercise SSANG Yong VII/BLT X 1-78

Encl: (1) BLT X 1-78 After Action Report

1. In accordance with the reference, enclosure (1) is hereby submitted.

D. J. COWELL
Acting

Copy to:
CO MAG-15 (S-3)
6468 ASS (TASCU)

TAB 13

AFTER ACTION REPORT

1. Deployment Sorties

DATE	BLF X SORTIES SCHED/FLOWN/ADDONS			AIR TO GRND SORT. SCHED/FLOWN		FIGHTER INTER. SORT. SCHED/FLOWN		FERRY FLTS. SCHED/FLOWN		MSN CNX REASON LAUNCH WX/A/C AVAIL	
7 DEC 77	0			0		0		2	2	0	0
8 DEC 77	0			0		0		3	3	0	0
9 DEC 77	0			7	7	0		1	1	0	0
10 DEC 77	0			0		6	6	4	4	0	0
11 DEC 77	6	6	0	0		2	2	0		0	0
12 DEC 77	6	0	2	0		[illegible]		2	2	6	0
13 DEC 77	6	0	3	0				2	2	6	[illegible]
14 DEC 77	6	2	0	[illegible]				5	5		4
TOTAL	[illegible]	8	[illegible]	[illegible]		[illegible]	8	19	19	12	[illegible]

2. Flight Hour Summary

a. [illegible] Flight Hours [illegible]

b. [illegible] Flight Hours [illegible]

c. Air to Air Hours 10.0

d. Ferry Hours 24.9

TOTAL Hours: 64.6

3. Detachment operating costs $40,698

4. Training accomplished X's [illegible]-1/36 Ref. X's

5. Of the 24 sorties scheduled [illegible] 30%) were cancelled because Taegu Airbase was below take-off minimums and 2 (8%) were cancelled airborne because of target [illegible]. Six scheduled sorties and five non scheduled sorties were [illegible]. Two missions were aborted because of airborne mechanical problems. The results of this exercise due to weather are similiar to previous air to ground exercises conducted in Korea and supported from Iwakuni. However, many of the command and control problems were eliminated.

6. Command and Control Problems

a. The primary problem encountered during the planning phase of this operation was the lack of pre-strike information. The detachment had no knowledge of the location of designated targets, the location of battalion objectives and their scheme of maneuver. The problem can be eliminated by timely issuance of the operation order to participating units.

b. Should future BLT exercises be conducted from Taegu, some method of timely communications must be established between Taegu and the command ship. Such a communication net is required to transmit frag changes and to relay problems encountered by the fixed wing detachment.

c. Attendance at the pre sail conference should be mandatory for all participating units. This conference provided the necessary information and coordinating instruction to successfully complete the fragged mission.

d. The primary method of transportation and resupply between Taegu and Iwakuni was an F-4 with two baggage tanks. A C-117 was requested and one flight was provided on the 15th of Dec. However, the F4's had already redeployed to Iwakuni.

7. The following is a brief narrative of the main events of the detachment.

a. On 7 and 8 December Det B deployed to Taegu Air Base with five F4J's. No organizational maintenance capability was established in a cement revêtment. Squadron aircraft were also sheltered in revêtments. Additionally a command tent was provided to serve as a ready room. Overall the facilities provided by the 6168th Air Base Squadron were excellent.

b. The detachment commenced flight operations on 9 December. Seven ground to air sorties were flown to the Koon Ni Range and the sixth aircraft arrived from Iwakuni on this day.

c. On 10 December Six [illegible] intercept sorties were flown in the R-74 area. Additionally, [illegible]y/instrument hops were flown.

d. BLT X 1-78 commenced 11 December mission 3450001 a flight of four F4J's contacted Icepack [illegible] point V. The flight was switched to the control of WA 08 (TAC (A) [illegible] vectored toward the beach. The F4J's obtained visual contact with [illegible] beachead prior to WA08 and commenced their runs just prior to the [illegible] entry landing. As the first wave landed the F4J's terminated their [illegible] and was assigned an additional fighter intercept mission by Icepack. Mission 3450002, a flight of two F4J's, was assigned a mission against an entrenched gun position. Handling by the ground Fac was expeditious; upon completion of the ground to air mission the F4's were assigned a fighter intercept mission by Icepack.

e. On 12 December missions 3460001 and 3460002 were cancelled because the field was below takeoff minimums. Permission to launch pilots with special instrument ratings to complete the mission and recover at MCAS Iwakuni was denied by Taegu Air Base. During the afternoon a section of F4's launched and completed a mission with John Brown Fox 14. Additionally, two ferry/instrument hops were flown.

f. On 13 December missions 3470002/3 and 4 were cancelled for weather. Three additional sorties were launched in the afternoon for [illegible] support. Two ferry/instrument hops were flown in the evening.

g. On 14 December mission 3480002 launched from Taegu but due to enroute weather the mission was cancelled by Icepack and the F4's recovered at MCAS Iwakuni. Mission 3480003 and 4 were cancelled because of airborne mechanical problems and the F4 diverted to MCAS Iwakuni.

h. One aircraft developed severe fuel leak and was left at Taegu upon return of the Detachment.

8. Summary. While deployed at Taegu the detachment flew 47 sorties for 54.6 hours. These sorties resulted in a significant increase in squadron aircrew's CRP due to the availability of several air to air and air to ground ranges. The proximity of these ranges eliminated many of the command and control problems experienced in previous Korean exercises. Specifically, tankers, tanker areas and good tanking weather have always been deterrent factors in the past. Although BLT X 1-78 was not overly productive from the F4's point of view due to bad weather, The overall training received by squadron aircrews on this [illegible] deployment was valuable. Aircrews gained substantial experience on how to operate from a Korean Air Base, functioning within the Air Force command and control networks and VFR navigation in Korea. Because there was only one C-117 sortie, spare parts were ferried by F4J, and a maintenance team to verify the severe fuel leak problem of DW-12 was delayed in transportation by about one week.

9. Maintenance. The main party of the maintenance det arrived after the aircraft were in place at [illegible] Facilities (Revetment spaces) were dispersed yet adequate [illegible] ration from the Air Force (Senior MSGT ALLEN and Sen[illegible] KOHAAK)was noteworthy. The major aircraft problem during the [illegible]ment was hydraulic leaks. On future deployments of this nature to [illegible] weather sites, it is recommended that at least four hydraulic[illegible] taken. The increase in hydraulic problems caused depletion of [illegible] supply of hydraulic fluid. The Air Force provided the follow[illegible]ditional support:

Pre Heater	0930 11 DEC	[illegible]00 14 DED
MB-4 Prime Mover	1230 12 DEC	[illegible]00 13 DEC
MA1A-A	1300 10 DEC	[illegible]00 15 DEC
TAP	1130 13 DEC	[illegible]00 13 DEC

All logistical support (A/C Part[illegible]) was provided by this squadron using the baggage tank for the F4J. [illegible] communication (Autovon) between Iwakuni and Taegu caused many de[illegible]s in passing of vital information. Lack of FISDU Flights caused excessive delay in evaluating the fuel leak of LW-12.