6 — CAMPAIGNS

6. CAMPAIGNS

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CAMPAIGNS

Your training is now complete, and you are one of the finest pilots the United States Armed Forces has to offer. Now it is time to give something back. You have been called upon to defend U.S. interests in Russia, Egypt, Vladivostok, Kuril, Vietnam, and the Baltics.

Campaign Options explains how the campaigns work.

Campaign Histories (pp. 174-182) explains why an American victory on all is so crucial.

CAMPAIGN OPTIONS

Start New Campaign/Continue Old Campaign

To start a new campaign, select START NEW CAMPAIGN from the *Choose Activity* screen. The *Select Campaign* screen appears. Select from one of six single player campaigns: EGYPT 1998, RUSSIA 2002, BALTIC 2009, KURIL ISLANDS 1997, UKRAINE 1997, and VIETNAM 1972.

To continue an old campaign, select CONTINUE OLD CAMPAIGN from the *Choose Activity* screen. This sends you directly to the *Select Pilot* screen, to choose the pilot whose career you wish to resume.

Select Pilot Screen

The *Select Pilot* screen does more than let you choose your alter ego in the campaign. A pilot is in essence a saved game. Creating a new pilot therefore is equivalent to starting a new campaign. Likewise, choosing a pre-existing pilot is equivalent to continuing his campaign. The option COPY PILOT acts as a "save game" feature, by creating a backup copy of your pilot that allows you to replay your mission.

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On the Panel

Click on any of the buttons to choose the following options:

NEW PILOT   Create an entirely new pilot. The pilot begins with the rank of 2nd lieutenant and no awards or commendations.

DELETE   Delete the currently selected pilot.

COPY PILOT   Create a backup copy of your pilot. If your pilot is killed or captured, you can resume his career from the last backup. Pilot is saved with same name and a copy number (i.e., if you copy a pilot named MARK, the copy would be named MARK COPY 1).

PREV/NEXT   Cycle through existing pilots and choose which campaign to resume.

CANCEL   Exit the *Select Pilot* screen, without going into a campaign. You will lose any changes you've made and return to the *Choose Activity* screen.

SELECT   Begin (or resume) the current pilot's campaign.

On the Photograph

PREV PIC/NEXT PIC   View the previous or next picture. Choose the face of your pilot.

On the Clipboard

Left- and right-click on the clipboard (or use Pg Up and Pg Dn) to flip through the clipboard pages.

NAME   Specify your pilot's full name.

CALLSIGN   Give your pilot a callsign.

NOSE ART   (2nd page) Customize the artwork on your aircraft's nose.

TAIL ART   (2nd page) Customize the artwork on your aircraft's tail.

The clipboard also gives you a summary of the pilot's campaign performance, rank, kill record and hit percentages. (For a new pilot, these are blank.)

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Campaign Screens

Now that you are in the campaign, a series of screens prepares you for your next mission. You receive your briefing, study the map and plan your waypoints, and choose your aircraft and loadout. When you return to base (if you return to base), you will be able to repair your aircraft.

Mission Brief Screen

The *Mission Brief* screen displays the background and objectives of each mission in the campaign.

Use [Pg Up] and [Pg Dn] or right- and left-click on the clipboard pages to flip through them. When you've got a handle on the situation, click OK or press [Enter].

HOURGLASS

BALUZA AIRBASE
DATE: June 23
LOCAL TIME: 0600
WEATHER: Clear

SITUATION
Burdened by a stagnant economy, a rapidly expanding population, and a political elite indifferent to the plight of the growing underclass, Egypt teeters on the brink of full blown civil war. The unemployed urban masses, despairing of their opportunities for advancement in the current secular order, have placed their faith in fundamentalist religious leaders. These clerics offer hope -- hope that a theocratic utopia can be won through violent revolution.

Mission Map Screen

The *Mission Map* screen lets you plan your waypoints according to the mission objectives. You can control the map with key commands and with the mouse, or by choosing the corresponding options from the VIEW menu.

Scroll bars

Zoom switch
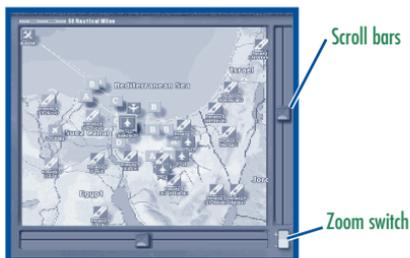
[←]	SCROLL LEFT
[→]	SCROLL RIGHT
[↑]	SCROLL UP
[↓]	SCROLL DOWN

You can also scroll the map by dragging the scroll bars at the right and bottom of the map.

[+]	ZOOM IN
[−]	ZOOM OUT

You can also zoom in and out by clicking the +/– switch with the mouse.

[N]	CENTER MAP AT CURSOR
[B]	CENTER MAP AT SELECTION

If SMART ZOOM is activated on the VIEW menu, a selected icon will remain in the center of the map as you zoom in and out.

Altering Waypoints

You can edit waypoints in the mission, but only for your wing. Your superiors designate the waypoints for other aircraft wings, and these *cannot* be altered. Change your waypoints with the following keys, or by selecting the corresponding option from the **WAYPOINT** menu.

Ⓐ	ADD	Give your wing additional waypoints — select your wing first, then press Ⓐ
Ⓓ	DELETE	Delete selected waypoint
[ ]		Cycle through the waypoints (you can also select waypoints with the mouse cursor)

You can position the waypoints by dragging them with the mouse.

Depending on the mission, you might want to create a loop for your wingman — for example, you could have your wingmen fly a MIGCAP or a BARCAP (see facing page) over several waypoints in a target area while you engage the target. When you create a loop for your wingmen, they will fly from an initial waypoint, along any intermediary waypoints, until they reach a final waypoint, and then loop back to the initial waypoint.

Ⓒ	CREATE LOOP	Select an initial waypoint, press Ⓒ, and then click on the final waypoint
Ⓔ	DELETE LOOP	Click on the final waypoint, and then press Ⓔ

Waypoint Text Buttons

Details about the selected waypoint appear in the panel to the right. Click on the text buttons to change any of the following for your wing:
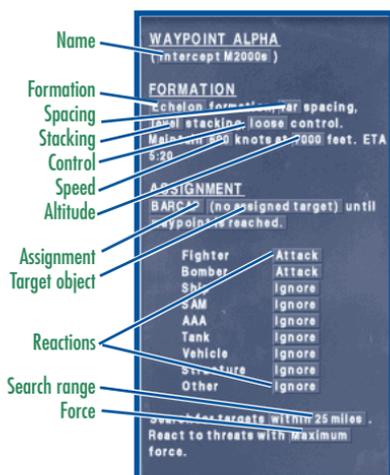
Name. Brings up a selection panel that lets you name the waypoint (Ingress, Feet Wet, etc.).

Formation. See **Formation, Spacing and Stacking Diagrams**, p. 212.

Spacing. See **Formation, Spacing and Stacking Diagrams**, p. 212.

Stacking. See **Formation, Spacing and Stacking Diagram**s, p. 213.

Control. TIGHT (maintain formation no matter what), LOOSE (break when enemy or incoming missile detected, and remain broken until wingleader orders to disengage), or MEDIUM (maintain formation unless leader orders a break and attack, break and return to avoid missiles).

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Speed. Set how fast your wing travels to the waypoint. Setting a speed does not guarantee that an aircraft is capable of attaining that speed at the given altitude.

Altitude. The altitude at which your wing travels to the waypoint. Setting an altitude does not guarantee that an airplane is capable of attaining that altitude.

Assignment. Your assignment for the waypoint appears in the box beneath "Assignment." This assignment determines your wingmen's reaction to different types of objects. As you cycle through the assignment options, the text in the Reaction boxes below will change accordingly. You can change waypoint assignments for you and your wingmen, but your mission objectives must be met in order to win the mission. Assignment abbreviations are explained below.

NORMAL FLIGHT	Defend against fighters, ignore all others
MIGCAP	MiG Combat Air Patrol. Seek out and destroy enemy aircraft near specified waypoint
BARCAP	Barrier Combat Air Patrol. Engage any aircraft attempting to cross the patrol zone
WILD WEASEL	Attack enemy air defenses (SAM sites, AAA, etc.)
CAS	Close Air Support. Provide CAS for artillery and infantry by engaging enemy tanks and armored vehicles
ANTI-SHIP	Seek and destroy enemy naval vessels
HI/LO SWEEP	Approach at high altitude; sweep low to engage any enemy

Target object. This box lists a specific enemy target that you must destroy, or the friendly aircraft you must protect at this waypoint. To change targets, click on the text button. The prompt, *Select either a friendly plane to escort, or an enemy target,* appears at the bottom of the screen. Click on a new target.

Reactions. These text buttons list your wingmen's default reactions to various types of enemy objects. These are their default orders only; any orders you give them during the mission supersede these. The reactions are explained below.

ATTACK	Search for enemy targets of this class and attack them
DEFEND	Defend if under attack from this class of enemy
IGNORE	Ignore enemies of this class
EVADE	Avoid any object of this class

Search Range. This is the range within which your wingmen will search for enemies. (Your wingmen are still limited by the detection devices they have.)

Force. MAXIMUM/EQUAL/DOUBLE. The level of force your wingmen will use against enemy threats or targets.

Aircraft Selection Screen

The *Aircraft Selection* screen shows all of the aircraft available to you for the rest of the campaign. This is where you decide which aircraft you'll take up on this particular mission. The recommended aircraft is already highlighted.

Suitability to the mission is the primary consideration when selecting an airplane. For more information on player and enemy aircraft, choose REFERENCE from the *Choose Activity* screen or refer to **Jane's Specifications**, pp. 242-282.

Your second consideration when choosing an airplane is the amount of damage it has already taken. It's inevitable that your aircraft will take damage in some missions. Damaged airplanes must be repaired, and the man-hours of mechanic time available to you are limited. For details, see **Aircraft Repair Screen**, p. 172.

Activating ALLOW FLYING ANY PLANE on the **CHEAT** menu at the top of the page gives you unlimited airplanes for the duration of the campaign.

Note: If you have any cheats active (except IGNORE MIDAIR COLLISIONS, EASY TAR-GETING, NO SCREEN SHAKING, and AIR COMBAT—GUNS ONLY) during a campaign, whether from the Aircraft Selection *screen, the* Load Ordnance *screen or the* In-Flight *menu bar, you will not be eligible for promotions or medals.*

Click on the airplane you want to fly, and then click ARM PLANE or press [Enter].
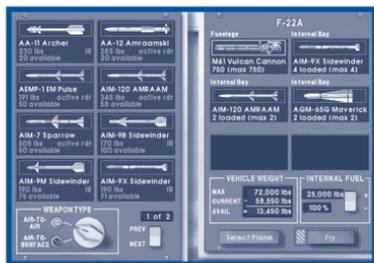
Load Ordnance Screen

The *Load Ordnance* screen allows you to designate the types and number of weapons your aircraft will carry in the mission. The number available under each weapon on the left panel is the total number available during *the entire campaign*. If you use up your stores of AIM-120s on this mission, you won't have any left for the next one.

All the weapons that can be loaded onto the aircraft you've chosen appear on the left panel; your aircraft's current weapons load appears on the right. Each black box on the right panel represents a hardpoint on your aircraft.

If the word NOTHING appears in one of these black boxes, that hardpoint is free and you can load it. If the box is totally blank (without even the word (-NOTHING), then the hardpoint is unavailable for loading.

To change the type of weapons (Air-to-Air or Air-to-Surface) on the left panel, click on the red lights next to the dial. The Air-to-Surface group may include external fuel tanks, an AAS-38 FLIR pod, an ALQ 167 jammer pod or a Pave Spike laser-designator pod, if these can be loaded on your aircraft. The weight, guidance system and number available for each weapon is listed beneath it.

Loading weapons. Move the mouse cursor over a weapon on the left panel, hold down the mouse button, and drag the weapon to the hardpoint. You can only load one type of weapon on a hardpoint.

Unloading weapons. Move the mouse cursor over a weapon on a hardpoint, hold down the mouse button, and drag the weapon back over to the weapon list. You can also select UNLOAD ALL from the **WEAPONS** menu to clear all ordnance from your aircraft.

Maximum Takeoff Weight

The maximum takeoff weight for your aircraft is listed on the right. If you need to adjust the weight of your airplane to remain under this maximum, you can unload gun rounds, unload fuel, or unload weapons individually from your hardpoints. After loading the ordnance you want on the mission, click FLY or press [Enter].

Unloading and reloading gun rounds. To unload gun rounds, right-click on the gun icon. To reload, left-click.

Adding and removing fuel. You may need to reduce your internal fuel to accommodate more weapons, or eliminate weapons to increase your fuel for long-range missions. To remove fuel from your internal fuel tank, left-click [−] on the INTERNAL FUEL switch. To add fuel, left-click [+] on the switch.

Unloading and reloading individual weapons. You can right-click on a hardpoint to decrease the number of bombs and missiles on it. Left-clicking on the hardpoint increases the number of weapons.

*Note: Activating CHEAT on the WEAPONS menu allows you to load any **type** of weapon on your aircraft. To load unlimited **amounts** of weapons, activate UNLIMITED AMMO on the CHEAT menu of the In-Flight menu bar. However, activating any cheats (except IGNORE MID-AIR COLLISIONS, EASY TARGETING, NO SCREEN SHAKING, and AIR COMBAT—GUNS ONLY) during a campaign will make you ineligible for medals or promotions.*

Aircraft Repair Screen

After each mission, the *Aircraft Repair* screen appears. This screen allows you to make repairs to the limited number of airplanes available to you during a campaign.

Anytime an aircraft is hit by enemy weapons, it takes damage. Aircraft require a high degree of maintenance — even the stress of normal flight will result in a small amount of miscellaneous damage to your airplane. Damage is measured in terms of percentages. At 100% damage, your airplane is guaranteed the loss of one or more critical systems: oil lines, fuel tank, radar, weapons, control surfaces, etc. Your airplane can take damage beyond 100%, but it won't be capable of flying again until its damage is repaired to under 100%.

You are allotted 50 man-hours of repair time after each mission. You don't necessarily have to repair the airplane you just flew — you can choose to spend these hours on any damaged aircraft in your inventory. Note, however, that hours are not cumulative; that is, you cannot save them from mission to mission. Use all of the hours allotted you; they won't be available again after the next mission.

If an aircraft takes damage, you'll notice yellow mules (motorized personnel carts) surrounding it. The more mules, the more damage the aircraft has taken. You can see exactly how much damage an airplane has taken and how many hours of repairs are needed by clicking on that airplane.

To repair the damage to an airplane, click on the damage line in the selection panel. The man-hours needed to repair it are automatically subtracted from your total at 10-hour intervals.

Ending Missions and Campaigns

Ending a Mission

You can end a mission at any time by selecting END MISSION (Ctrl Q) or EXIT TO WINDOWS (Alt F4) from the **?** menu. If you end before achieving your objectives, the mission will not be successful.

Success. In order for the mission to end successfully, you must achieve all mission objectives and get within your airbase's or carrier's protective zone. A radio message — "We're almost home!" — lets you know when you're in this zone.

Failure. If you quit a mission without achieving your mission objectives, you fail the mission. If you end the mission before you make it back to the carrier's protective zone, you fail the mission and lose an airplane.

Ejecting is the riskiest way to end a mission. Whenever you bail out, you lose that airplane from your inventory. If you're over enemy territory, you also run a risk of being captured by enemy forces. This ends the campaign immediately. If you're rescued, you continue the campaign (minus the aircraft you lost).

Losing the Campaign

There are several ways for the campaign to end permanently. Your pilot can die. He can bail out and get captured by the enemy. Or he can fail five missions and get reassigned to some other part of the world.

In all of these unfortunate events, you can turn back the hands of time and give your hero another chance. After flying a losing mission, a dialog panel appears, asking if you want to try this mission again. If you select NO and your pilot didn't make it back home, your pilot is gone forever and that campaign is over. If you select YES, wait for the *Mission Brief* screen to appear and replay the mission. If you don't want to replay the mission now, select EXIT CAMPAIGN from the **?** menu on the *Mission Brief* screen.

Winning the Campaign

A campaign consists of a series of missions which must be executed in order. As in real life, your primary goal is survival. You must survive all of the sorties in your tour in order to win. This means that you don't have to repeat missions until you've won every one of them. If you fail a particular mission, it's assumed that other pilots step in and achieve your mission objective for you.

However, keep in mind that the Brass doesn't like to re-deploy assets to cover your failures. While your superiors understand the formidable challenges you face, they expect maximum performance from you. If you fail five missions, you will be assigned a different task far away from the front. The war will be over for you.

CAMPAIGN HISTORY – EGYPT

Jane's Intelligence Review – Pointer

Egypt's hard line policy pays off (abridged)

Egypt's political stability has been of concern both in the country and among outside observers, but threat perceptions differ. Western observers are sensitive to signs of Islamist activism and violence but Cairo see its dire economic situation as a more fundamental problem. Outside observers have paid most attention to the violent campaign by Islamist insurgents, led by the Jama'at al-Islamiya. It represents the culmination of an upsurge in political Islamism, which has been evident since the 1970s, but the current generation of militants tend to be younger, poorer and less intellectual than their predecessors. In comparison to some of the violent Islamist groups that emerged earlier, movements such as the Jama'at al-Islamiya have an underdeveloped ideology and are more proficient at terrorist operations than at debating Islamic theology.

However many people it arrests, the government cannot disguise the fundamental problems it faces in the economy or in restructuring itself. It is these issues which underlie the growth of Islamist militancy. Unemployment has soared to about 14%, especially among the young. Over 75% of the unemployed are school or university leaders. This pool has been the radicals' main recruiting ground.

Egypt has been engaged in a reform programme, mandated by the IMF, since the 1990-91 Gulf War, but so far this has brought only hardship. The IMF and World Bank praise the 75% reduction in food subsidies and the fall in the budget deficit to 2.4% of GNP, but still, the predicted growth rate of 3-4% is less than the 5% needed merely to employ new entrants to the labor market.

The government recognizes the need to cushion the populace against the short-term pain these reforms entail but has shown itself unable to do so. The bloated and corrupt state bureaucracy fails to provide an effective social security network, enabling the Islamists, with their network of mosques and social services, to fill the gap. Elements within the establishment have resisted the threat to their vested interests posed by the reforms. The military is resistant to cutting back its vast economic empire and allowing the private sector to spur growth.

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Jane's Defense Weekly

Flashpoints — Egypt

4 February 1995   Volume 23, Issue 5; Page 12

Fighting flared again in Minya province, south of Cairo, last week as Egypt's civil war against Islamic revisionists enters its fourth year. Accurate figures are not available for the death toll, but the Egyptian police say that 600 officers have been killed since 1992.

11 February 1995   Volume 23, Issue 6; Page 22

Fighting in the Nile valley, 300 km south of Cairo, has increased as Islamic groups and security forces intensify their activities. Amid the civil unrest, there are increasing accusations of police and army violence against innocent civilians in their hunt for armed rebels.

Frontline: The Middle East

28 April 1998   Volume 25, Issue 20; Page 10

Egypt slow to handle rebel takeover

The decades-old battle between the Egyptian government and political Islamists has erupted in a surprise takeover of government facilities in and around Cairo. Precise accounts of which facilities have been affected are unavailable, but reports confirm that at least three airbases at Cairo, El Sharif and Bur Sa'id have fallen under rebel control.

Several Islamist groups claim joint responsibility for the takeover, and there is some suspicion that arms, monetary and advisory aid from Libya, Syria and possibly Iran — governments long opposed to "westernization" in the area — may lie behind this sudden unification and mobilization of once disparate groups.

The Egyptian government is still reeling from the attack and has given no indication of organized plans for reprisal. The Egyptian police forces normally assigned to the suppression of Islamic civil unrest continue to fight sporadically, joined by the Egyptian military whenever military installations are threatened. A long history of civilian casualties and raids has left the police unpopular in the Cairo region; local residents appear to support the rebels and refuse to cooperate with authorities.

Several countries, including the US, France and Israel, have denounced the takeover and offered Egypt support, and it is expected that the EU will follow. Egypt has the second largest arsenal of aircraft, tanks and weapons in the region (Israel is first), and the possibility that it could fall into the hands of Islamist groups threatens the tenuous stability of power in the entire region.

CAMPAIGN HISTORY – RUSSIA

Jane's Intelligence Review

Decline and Fall - The China Card (abridged)

by Dr Mark Galeotti

It is important to appreciate just how far China is playing a long game at a time when Russia is still lurching from one hurried initiative to another in a desperate struggle for day-to-day survival. As far as Beijing is concerned, it does not matter whether Boris Yeltsin and, indeed, Russian democracy survives, so long as Sino-Russian relations have been uncoupled from domestic politics. Besides which, China feels that time is on its side and, therefore, the priority is to defuse Sino-Russian tensions for the medium-term; the long-term will look after itself.

Sino-Russian relations have, after all, a long pedigree of conflict, arguably dating back to medieval Mongol invasion and, most recently, armed clashes along their common border in the mid-1980s. Their relationship will prove paramount in determining the fate of eastern Eurasia.

Russia's very presence in Asia may be at risk if regional separatism [in Russia] continues to develop. Russia's Far East is already a semi-detached partner within the Federation, with a brief historical experience of independence (the Far Eastern Republic of 1918-21) and ethnic, economic and practical ties with China.

Of late, Boris Yeltsin has revived talk of a collective security system for the Asia-Pacific region. What is unclear is what threats this system would be intended to avert. Ideally, it could prove an Asian CSCE, a forum for the solution of regional security problems. Alternatively, it could become the guarantor of a mutually convenient but arguably doomed status quo. This might prove attractive to many leaders but risks locking the member states into attempts to preserve an untenable status quo. That was what happened to the European Alliance system of the late nineteenth and early twentieth century, until one relatively trivial problem finally dragged all Europe into the First World War.

Dr Mark Galeotti is Lecturer in International History at the University of Keele.

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Encyclopedia of Military History

Volume XIV, page 1268

The Maritime Region

Called Primorsky Kray by the Russians, the Maritime Region was created in 1938 from part of the briefly autonomous Far Eastern Republic (Dalnevostchnaya Respublika), which had been re-absorbed into the Soviet Union in 1922. Vladivostok is now capital of the region, which has remained an administrative division of Russia since its inception.

Historically speaking, the land has been much sought after by Russia, China and Japan for its rich farmland surrounding the Ussuri River, the strategic port of Vladivostok on the sheltered Zaliv Petra Velikogo (Peter the Great Bay), and mineral resources.

During the 1800s the region passed repeatedly through control by imperialistic Russia, China and Japan. The 1858 Treaty of Aigun gave Russia jurisdiction over the land north of the Amur and Argun Rivers, China the land south of the Argun to the Ussuri, and the land east of the Ussuri to the Sea of Japan was to be held in common. After the Second Opium War, Russia took advantage of a weakened China and forced the Chinese to sign the 1860 Treaty of Peking, which gave Russia all of the lands east of the Ussuri, including the port city of Vladivostok. China has abided the terms of this treaty to date, but refers to it and other treaties signed during the Opium Wars as the "unequal treaties." China holds that with these treaties the imperial powers of France, Britain, Russia and Japan collaborated to divest China of its rightful territories, its power and its right to regulate foreign trade within its borders.

With China defeated, Russia and Japan began vying for control in the region. Common interest in the adjacent Chinese province of Manchuria led to the Russo-Japanese War of 1904-5, in which Russia was defeated and forced to cede its interests in southern Manchuria to Japan. Japanese control over Manchuria increased steadily, and in 1932, Japan set up a puppet government and declared the region the independent state of Manchukuo.

In response to growing Japanese power, Soviet Russia created a nominally inde-pendent Far Eastern Republic in 1918 to act as a buffer zone between Soviet-controlled western Siberia and the Japanese territory, which included the Vladivostok region. Skirmishes between local Bolsheviks and Japanese troops and pressure from the Soviet and US governments forced Japan to evacuate Siberia in 1922. The Far Eastern Republic was then incorporated into the Soviet Union.

Frontline: The Pacific

23 April 2002

Volume 30, Issue 18; page 12

Hotspots — Russia

With the Russian military effectively shattered by successive wars in Eastern Europe, the People's Republic of China has emerged as the leading military power on the Asian mainland. To preserve, or perhaps take advantage of this new position, Chinese military leaders began massing ground forces in Manchuria late last year.

Recent intelligence reports indicate that approximately 10% of Chinese troops and up to 40% of the country's air and naval forces are now stationed in Manchuria. It is believed that the PRC may be preparing an assault on the Russian "Maritime Region" and the port of Vladivostok.

Although Imperial China ceded the area to Russia over 140 years ago, and its current population is 85% Russian, the PRC still considers it Chinese territory. Known historically for their ability to wait out political upheavals over centuries, it appears that the Chinese are now ready to play their advantage and correct what they feel to be an ancient injustice.

Recognizing the precarious position of its former enemy, and the threat an aggressive China would pose to the political balance of Eastern Asia, the US agreed to lease air and naval facilities in the Maritime Region from Russia earlier this year. However, American presence in the region seems to have intensified the situation, and reports of encounters with Chinese fighters over Russian airspace have increased.

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CAMPAIGN HISTORY — BALTIC

Jane's Intelligence Review

Estonia: Facing up to Independence

By Felix Corley

Despite recent turbulence at the top, both on the political and military side, Estonia has single-mindedly pursued its eventual goal of protection from a potentially predatory Russia by full integration into European political and defense structures.

After being stripped bare of almost all the Soviet army's military hardware in the wake of independence, Estonia had to build up its armed forces from scratch. The architect of this, since his appointment as commander of the defense forces in May 1993, was former US Army Colonel Aleksander Einseln. His sacking in early December last year brought to an end the first, reasonably successful attempts by this small Baltic state to face the challenges and potential threats to its independence.

Defense Forces Structure

Current conscription rules mean that the large number of Russian speakers who have not been given citizenship are excluded from service. While this ensures that young Russian men do not acquire military training that might be used against the Estonian state, it provides a dilemma for the government which is considering some kind of service for them, although this is likely to be outside the scope of the combat forces.

Estonia's Concerns over Russia

Following the break-up of the Soviet Union at the end of 1991, the Russian Federation and Estonia signed a treaty on 12 January 1992. Relations soon deteriorated, with hostility centering around the issue of ex-Soviet troops stationed in Estonia. After much international pressure, Russia eventually agreed to withdraw its forces from all three Baltic states. Estonian President Meri and Russian President Yeltsin signed a treaty in Moscow on 26 July 1994 outlining the terms of withdrawal of all remaining Russian forces from Estonia (with the exception of those from the Paldiski nuclear facilities on the Pakri peninsula which were dealt with separately under an agreement signed four days later).

Now that the Russian forces have gone, the major bone of contention is the disputed border. Estonia complains that Russia is reluctant even to discuss the

disputed territories amounting to some 2,300 km^2 around Pechory/Petserimaa and around Ivangorod/Jaanilinn, included in Estonia under the 1920 Tartu Treaty but transferred to the USSR in the wake of the wartime annexation. In 1994, President Boris Yeltsin pledged on a visit to the Russian side of the border that his country would not return one centimeter of territory. Although joint border talks last year made some progress in agreeing the sea border, progress on the disputed territory has been minimal.

The Foreign Ministry also points out that Russia has never acknowledged that Estonia was illegally occupied by the Soviet Union. At the same time, it expressed concern about rising Russian nationalism in the run-up to the December elections to the Russian Duma and declared that four of the six leading contenders for the Russian presidency supported reincorporating the Baltic states into Russia. Now that the Russian elections are over, tensions should ease somewhat.

However, Russia clearly remains the main threat to Estonian independence. Juri Arusoo, a counselor at the Foreign Ministry, spells this out bluntly: "The main enemy is Russia. That's clear." Others are more diplomatic. Victor Polyakoff, a spokesman at the Defense Ministry, says Estonia does not have enemies: "Our main enemy is instability. There is no difference where instability comes from, whether north, south, east or west."

Estonia and NATO

Like the other two Baltic states, Latvia and Lithuania, Estonia sees the only realistic way to secure its defense as full integration into Western Europe, including membership of the European Union, the Western European Union and NATO. In applying for EU membership, Estonia made clear that national security was just as important a factor as the opportunity to join its political structures and to participate in the EU's vast economic market. One of the advantages of membership, the government stated, would be "increased security through economic ties with West European countries and through participation in European security structures".

Despite the lack of funds, which Oovel has admitted has hampered participation in joint NATO exercises, Estonia sets great store by its participation in international peace-keeping operations. Einseln proposed the formation of a peace-keeping unit during a meeting of Baltic military commanders in November 1993 and BALTBAT, as it came to be called, was set up on 13 September 1994 by Estonia, Latvia and Lithuania. Estonia's first peace-keeping platoon, ESTPLA-1, served in Croatia from February 1995 (after parliament passed a law allowing overseas peace-keeping service) and was replaced by ESTPLA-2 in August 1995. The platoons were part of the Danish Battalion and Denmark has trained most of the Baltic servicemen who have participated in the UN peace-keeping operations in former Yugoslavia. Estonia has used the former Soviet Paldiski base as the headquarters of its own peace-keeping training.

BALTBAT, which becomes fully operational this year, has three companies — one from each of the Baltic states — plus a logistics company. The main training base is at Adazi in Latvia. The battalion consists of 700-800 men, a third from each of the states. The three main positions (commander, deputy commander and chief of staff) are rotated between the three states, with Estonia currently appointing the commander. The USA has provided the largest resources, in both money and equipment, to get the battalion off the ground.

Baltic Co-operation

Another of Einseln's key goals was the creation of an effective military alliance with Latvia and Lithuania, part of which is coming to fruition with BALTBAT. The three have held regular high-level political meetings and Estonia has backed military co-operation, realizing that if Estonia is eventually to join NATO, it is likely to be only in association with the other Baltic states. In addition to meetings of the army commanders, the countries' volunteer home guard chiefs met for the first time in October 1995 to discuss joint exercises.

Estonia currently has no air defense network and sees Baltic co-operation as the most cost-effective way to build such a structure. The intention is to build a joint air control system for civilian and military forces.

Co-operation with Estonia's southern neighbor, Latvia, was complicated in 1995 by a dispute over the demarcation of the sea border between the two countries. Estonian border guards had detained Latvian vessels fishing in disputed waters. This dispute temporarily affected relations between the two Baltic states but both sides realize that close co-operation is essential.

Perspectives

It is obvious Estonia could not hope to defeat a Russian attack should it ever come again. The country's defense policy therefore has to be geared around integration into wider defense structures. Baltic co-operation alone is not enough. Knowing that NATO membership — its clear objective — remains some way off, Estonia looks set to count on Western sympathy, which might eventually bring the country into closer integration with the rest of Europe on a political and economic level and make up for its reluctance to integrate Estonia into military structures in the immediate future. As the former Soviet republic with perhaps the least military hardware and infrastructure of its own on independence, Estonia has done much to build up its embryonic forces but will need to spend more money — which it can ill afford — if it wishes to create a viable defense structure of its own.

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Frontline: Eastern Europe

2 July, 2004   Volume 32, Issue 7; page 19

Russia Restores Communists to Power

In a resounding national rejection of crime, corruption and Western-style capital-ism, the people of Russia voted overwhelmingly to return control of their country to the Communist Party. Last month's elections gave Communists a majority of more than 80% in Parliament, and virtually all significant executive positions.

The new government is expected to move rapidly to dismantle capitalist reforms, and return the country to a Soviet-style regime based on the old USSR, as it existed before its breakup in 1990.

Frontline: Eastern Europe

4 November, 2007   Volume 36, Issue 11; page 22

Russia Declares Re-Unification of USSR

On 24 October, the 90th anniversary of the beginning of the Russian Revolution, the Supreme Soviet announced its intention to re-unify the former USSR.

The Soviet proclaimed that the 1991 breakup of the original Soviet Union was an "illegal act," and called for the immediate "economic, political, and military reintegration of all former states of the Soviet Union into a single unified entity."

The announcement was greeted with global indignation. Speaking for NATO, Secretary-General Paquin said a return to "20th century policies of Communist imperialism, conquest and terror" will not be tolerated, and that NATO would oppose all such policies "to any degree which becomes necessary."

Frontline: Eastern Europe

3 August, 2008   Volume 37, Issue 8; page 9

Belarus Falls

After less than six weeks of fighting, the Belarussian government has surren-dered to invaders from the resurgent USSR. Soviet troops crossed the Belarussian border on June 4, and the government surrender was accepted on 13 July. Casualty totals for either side are unavailable at this time, but are believed to be light, due to the small size of the Belarussian military.

When news of the attack first broke, NATO moved rapidly to mass its forces in Latvia and Estonia, to prevent further Soviet expansion into the Baltic states. Since the surrender, an uneasy peace has prevailed, but both NATO and the USSR continue to deploy troops to the new border.

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CAMPAIGN HISTORY – KURIL ISLANDS 1997

Note: *The British spelling of Kuril (Kurile) is maintained in all articles from Jane's publications.*

Encyclopedia of Military History

Volume XII, page 2320   (1996)

Kuril Islands

Called *Kurilskiye Ostrova* by the Russians and *Chishima-Retto* by the Japanese, this archipelago is currently a part of the Sakhalin province of far-eastern Russia.

The islands were first settled by the Russians in the 17th century. Japan developed an interest in the islands in the mid-1800s, and by 1875 they had control over the entire chain. As part of the Yalta agreement ending World War II, the Kuril Islands were returned to the Soviet Union. Japanese inhabitants of the islands were deported and replaced by Soviet settlers. Japan never relinquished interest in the islands, however, and has been seeking to persuade the Soviet Union (and, after 1991, Russia) to return the southern islands — Habomai (Malaya Kurilskaya Grada), Shikotan, Kunashiri and Etorofu (Iturup) — to Japanese sovereignty since 1945.

MAJOR ISLANDS IN THE KURIL CHAIN

1. Habomai-Shoto (Malaya Kurilskaya Gr'ada)
2. Shikotan-To (Ostrov Shikotan)
3. Kunashiri-To (Ostrov Kunashiri)
4. Etorofu-To (Ostrov Iturup)
5. Ostrov Urup
6. Ostrov Simushir
7. Ostrov Onekotan
8. Ostrov Paramushir
9. Ostrov Shumshu

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Jane's Defense Weekly

Russia trims MiG-23 forces in Kurile Islands

By: Kensuke Ebata

The Russian Air Force has reduced the number of MiG-23 "Flogger" fighter aircraft based in the Kurile Islands. Japan's Defense Agency reported late last month that, in keeping with the general reduction in forces on the islands, the aircraft were removed from the Brevestnik (Tennei) airbase on Iturup (Etorofu) island.

The sovereignty of the Kurile islands, which are occupied by Russia, is disputed by the Japanese Government. Strategically the islands provide the only routes, especially the Kunashiri straits, that can be safely navigated by submerged Russian SSNs *en route* between the Pacific Ocean and bases on the Sea of Okhotsk at Poronaysk and Kirovskiy.

Russian President Yeltsin told Japan's then Foreign Minister Michio Watanabe in May last year that all armed forces on the islands would be removed with the exception of the border guard. Japanese Defense Agency sources said the reduction could be a move to improve relations between Japan and Russia or could simply be a cost-cutting exercise. No improvements or changes to the base infrastructure have been observed recently and therefore it is not thought that the "Floggers" will be replaced by more advanced fighter aircraft.

"Flogger" aircraft have been based on the island since April 1984 when they replaced MiG-21 "Fishbed" fighters. The force was updated with the later model MiG-23 MLD "Flogger F" and trainer MiG-23UB "Flogger C" versions.

About 5000 personnel are reported based at Burevestnik and a division scale ground force throughout the islands, reduced considerably since the early 1980s.

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Frontline: The Pacific

1 May 1997   Volume 24, Issue 20; Page 3

US seeks Japanese support; offers Kuril Islands

In a press conference last week, a spokesman for the Joint Chiefs of Staff announced that a US Marine task force has captured the two of the southern islands of the Kuril chain — Kunashiri and Shikotan — and is currently engaging Russian air and ground troops on the island of Irutup (Etorofu).

Seeking to safeguard Japanese economic support in the war against Russia, the United States announced last week its intent to secure the Kuril Islands. The islands, which are currently under Russian control, stretch between Japan and Russia and have long been of strategic concern for both countries.

Japan was one of the first to sign the Russian embargo agreement imposed by the President of the United States early this year, costing Russia its largest supply of electronic equipment and computer components. As war in Eastern Europe pushed Russian resources to their limits, the regime began issuing increasingly direct threats toward its eastern neighbor in an attempt to break the embargo.

Russian military bases in the Kuril islands place Japan well within reach of Russian air force bombers. Given the history of the atomic bomb in Japan, the threat of nuclear and conventional bombing is not taken lightly, and Japanese foreign officials have made it clear to the United States that they cannot continue support without increased measures of protection.

CAMPAIGN HISTORY – UKRAINE 1997

International Defense Review

Crimea: On the razor's edge

The Crimean parliament's decision of late June to hold a referendum on the autonomous republic's separation from Ukraine, and to disregard Ukrainian laws which contradict the Crimean constitution, may thwart hopes to defuse tensions in one of the most dangerous hotspots of the former Soviet Union.

Talking to Brigitte Sauerwein at the Forum of Crans-Montana in Switzerland, Crimea's President Yuri Meshkov denied separatist ambitions. A pro-Russian nationalist, Meshkov was elected with an overwhelming majority (73%) in January 1994. Crimea's goal is "economic independence" and "normal relations with both Ukraine and Russia," he said. Rejecting suggestions that Crimeans want to establish their own armed forces, Meshkov warned that "peace might be broken in a very short time" in the peninsula, as the cities of Simferopol, Sevastopol and Feodosia are encircled by Ukrainian troops.

Sometimes compared to Russia's Vladimir Zhirinovsky, Meshkov pointed out that they had both studied law at Moscow University. In his view, Zhirinovsky, "a clever man," was the first to account for popular sentiment in Russia.

Meshkov justified his own decision to abolish the Tatar minority's constitutional right to 14 seats in parliament because "constitutional rights should not be based on ethnic distinctions." Besides that, the Crimean minister of social affairs is a Tatar, the first ever to hold such an office in Crimea.

No Crimean representatives are involved in the Russian-Ukrainian negotiations on the future of the Black Sea Fleet — headquartered at Sevastopol — and this is an anomaly, in Meshkov's view.

Although the official currency is the Ukrainian karbovanets, Crimea has a "multi-monetary" system, including unofficially both the Russian rouble and the US dollar. According to the president, the country also has a well-developed infrastructure of 11 airports and seven large sea ports and will be linked to Russia by a bridge which will span the strait of Kerch.

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Jane's Navy International

Black Sea Fleet division near

Division of the former Soviet Black Sea Fleet between Russia and Ukraine was expected to be complete by 10 March according to Ukrainian naval sources speaking in late February.

Meanwhile, Russian President Boris Yeltsin has appointed Vice Adm Viktor Kravchenko as the new commander of the Black Sea Fleet. Formerly First Deputy Commander of Russia's Baltic Fleet, Kravchenko relieves Vice Adm Gennadiy Suchkov, acting Black Sea Fleet commander since the dismissal of Adm Eduard Baltin in January.

Baltin was sacked by joint decree after repeatedly condemning the division of the fleet. Speaking shortly afterwards he said: "I could not hand over the fleet [to Ukraine] because it represents not only history but also a part of Russia."

Baltin added, "With the reduction of the fleet, the post of commander will become increasingly nominal, and I am glad that I was not the last commander. Without a fleet there is no commander."

The split — under the terms of the June 1995 Sochi accord — will give Ukraine control of 13,000 personnel plus shore facilities and over 100 ships previously under joint command.

There are already concerns over the future of Russia's remaining share of the fleet. Interfax reports suggest that a number of major auxiliaries are to be transferred to the Caspian flotilla and the northern and Baltic fleets before 15 May. Major cuts in Black Sea naval aviation units have also been effected.

Russian fears have been exacerbated by the war in Chechnya and alarm at Turkey's naval modernization. Calling for Russia's Black Sea Fleet to be spared further cuts, deputy commander Rear Adm Aleksandr Aladkin said, "It is possible to make an exception for the Black Sea Fleet, both in its quantitative and qualitative composition, given Russia's geopolitical interests."

Expressing disquiet over Russian "concessions" to Ukraine, he added, "Ukraine, we believe, will set forth new overstated demands to Russia in the future, trying to establish its influence over the fleet's coastal infrastructure."

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Frontline: Eastern Europe

1 April 1997   Volume 24, Issue 16, Page 5

New Russian regime reclaims Black Sea Fleet

Reversing policy established under former Russian President Boris Yeltsin, earlier this month the infant military regime in Moscow announced its intention to retain the entire Black Sea Fleet with a show of force.

Behind the success of this military coup lies a growing demoralization among military and citizens alike. Once a part of a respected and feared superpower, Russians began to feel their status slipping among world powers as the Russian economy steadily worsened. Military leaders began to fear that sales of arms and equipment were being considered to cover the debts democracy was incurring. And as military budgets thinned, civil disturbance in semi-autonomous regions grew. Ethnic Russians in these regions and in the states of the former Soviet Union felt increasingly abandoned.

The 1996 division of the Black Sea Fleet between Russia and the Ukraine enraged the pro-Russian separatists in Crimea and the bloc of military and paramilitary leaders now in power in Russia. This fleet has historically been a source of pride among the Russians and is considered Russia's gateway to the Mediterranean Sea. It is no wonder then that the fate of the fleet has become a locus of Slavic nationalism and the primary agenda of the new Kremlin order.

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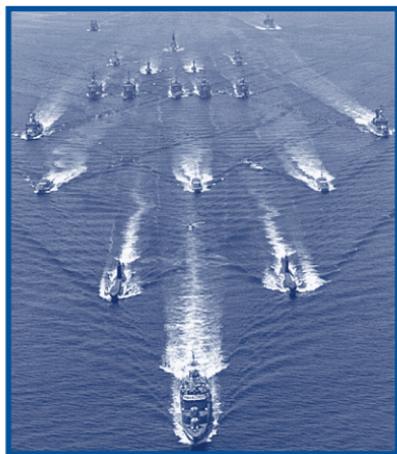
CAMPAIGN HISTORY — VIETNAM 1972

Naval Aviation in the Vietnam Conflict

Precedents

The doctrine of naval aviation developed during World War II and in Korea. During these wars, aircraft launched from carriers provided air support for ground forces and strikes against logistics and industrial targets. Such strikes established the naval carrier's role in the projection of force onshore, as well as control of the sea.

During the Vietnam Conflict, Task Force 77 oversaw carrier operations in the Gulf of Tonkin. Two stations were set up — Yankee Station to the north for strikes against North Vietnam, and Dixie Station to the south for operations in South Vietnam, Laos and Cambodia.

Naval air participation in the conflict began as early as May 1964, when Yankee Team began Navy and Air Force reconnaissance flights over Laos. Shortly afterward, Vietnamese PT boats repeatedly attacked the fleet, and US carriers in the Gulf of Tonkin launched retaliatory air strikes.

In response to the increasing aggression in the gulf, Congress passed the Tonkin Gulf Resolution (H.J. Congress RES 1145) in August 1964, announcing the United States' official entry into the conflict as an armed combatant.

Rules of Engagement

Although the Gulf of Tonkin Resolution sanctioned the use of armed force, strict rules of engagement were in place that changed little until 1972. Keeping civilian casualties to a minimum was a primary concern. Targets were limited to roads, canals, bridges and petroleum storage facilities, and most cities were protected as restricted areas. The State Department even limited ordnance loads and insisted on perpendicular runs against bridges in an effort to minimize casualties alongside target areas.

Such micro-management often rendered the strikes ineffective. For example, it was practically impossible to destroy a bridge with a perpendicular run (as opposed to a run down the center of the bridge). In addition, the attempt exposed the pilots to air defense units commonly located on riverbanks.

Of equal concern was the possibility that the Soviet Union or China might be provoked into openly declaring war on the United States. To minimize this risk, strikes were prohibited in a 30-mile buffer zone along the Chinese border. Chinese ships that fired on aircraft and ships in the Tonkin Gulf were off-limits

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unless they hampered a rescue attempt. Even SAM sites under construction were off-limits for fear that the Soviet Union would retaliate if their "advisors," who were helping to install the sites, were hit.

Fear of open Chinese and Soviet entry into the conflict prevented strikes that would cut off supply routes at the Chinese border. Likewise, the Haiphong docks, through which most arms entered the country, were off-limits because of foreign ships docking there. Once supplies entered Vietnam they were split up into small shipments (often the size of a single 55-gallon drum) and transported throughout the country on civilian trucks and bicycles. The level of precision required for strikes against such small targets in civilian areas did not exist with the weapons systems of the time. However, laser-guided bombs introduced during the Linebacker phase greatly improved strike accuracy and success.

The rules for retaliatory engagement loosened a bit in 1970, when "protective reaction strikes," or retaliatory fire against North Vietnamese aggression, were approved. At first, pilots were only allowed to fire after they were fired upon. Later, this rule was amended to allow pilots to fire once an enemy "locked up" on their aircraft. However, restrictions on pre-emptive strikes remained largely unchanged until the Linebacker campaigns of 1972-73.

Linebacker I and II

By May 1972, five Navy carriers — the *Constellation, Kitty Hawk, Hancock, Saratoga* and *Coral Sea* — were stationed in the Gulf of Tonkin. On 9 May, A-6s and A-7s from the *Coral Sea* began Operation Pocket Money — the mining of the Haiphong harbor, through which 85% of all shipping traffic entered the country. The next day, the first decisive attempt to cut off all supply routes into Vietnam began with the Linebacker I campaign.

For Linebacker I, targets and mission objectives were decided by individual units rather than in Washington. The campaign's goal of cutting road and rail lines into China made rail yards, hydroelectric plants, bridges and even airfields legitimate targets. Between May and September, Navy aircraft from the five carriers flew about 4000 sorties a month. This heavy air engagement provoked the greatest North Vietnamese air-resistance efforts of the war, including the highest number of air-to-air engagements.

The unrelenting strikes paid off, however, as supply lines into Vietnam slowed to a near halt. U.S. forces witnessed the obvious drop in supplies — SAM threats became almost non-existent and AAA went from 85mm barrages to mostly 23mm and 37mm small-arms fire. By October, the North Vietnamese government seemed ready to discuss a peace agreement, and strike operations slowed.

However, peace negotiations soon ground to a near standstill, and President Nixon authorized the start of Linebacker II, a massive bombing campaign led by B-52s based in Guam and Thailand, with flak suppression support from Navy carrier aircraft. Peace negotiations were quickly resumed, and in 1973 combat operations in North Vietnam were halted. On January 23, representatives of the United States, North and South Vietnam and the Viet Cong signed a cease-fire agreement in Paris, and the United States began a complete withdrawal from Vietnam.

Threats that Aircraft Faced

Anti-Aircraft Artillery

Although SAMs, which had been first sighted in Vietnam in 1965, were assumed be the greatest threat to aircraft, anti-aircraft artillery actually destroyed more planes than any other threat in Vietnam.

Because of the SAM threat, a shallow-angle, low-altitude delivery was adopted for strike aircraft. This delivery pattern sent planes right into AAA range, but it was believed the gunners wouldn't be able to track the fast jets. In reality, North Vietnamese gunners didn't even bother with tracking. They figured out where the jets were headed and covered the path to target with as much flak as they could. The jets had to fly though a barrage of 100mm, 80mm, 57mm, 37mm, 23mm and even small arms fire, which was impossible to completely evade.

Smaller caliber guns were extremely mobile, and they were moved quickly to concentrate along sortie routes. Flak suppressors took care of many of the larger guns, but these were easier to replace than SAMs, and were shipped in continuously on freighters entering Haiphong harbor until the harbor was mined in 1972.

Note: In the game campaign, you are extremely vulnerable to small arms fire beneath 4000ft, but this does not do as much damage as larger guns. The largest anti-aircraft guns — the 85mm KS-12 and the 100mm KS-19 — can destroy you with one shot, but their minimum range is 4000ft.

Higher value targets will be surrounded by more flak. If you have to fly through flak, get in and get out quickly, for it takes some time for them to target you and fire. If you are flying supersonic, or jinking, hit probability is reduced.

Surface-to-Air Missiles

SA-2s had been in operation since the 1950s and were used throughout the Vietnam conflict. Each unit consisted of four to six launchers and a fire-control radar. There were about 200 units in Vietnam by 1972, but only about 35 were operational at any given time. (SAMs were continuously moved to hide them from SEAD aircraft.)

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Although not the biggest threat in terms of numbers of aircraft downed, they were certainly a threat for the pilots who encountered them. According to Soviet doctrine, missiles were fired in pairs with a few seconds separation between them. This was a sound strategy, for the first missile was easy to dodge if spotted early enough, but as the pilot avoided it, he lost the time he needed to avoid the second missile.

SAM evasion tactics and ECM first came into widespread use in the skies over Vietnam. It had been common practice for ECM planes to accompany strike aircraft, but now ECM pods were attached to individual aircraft to combat both surface-to-air and air-to-air threats. Also, based on experience over Cuba, air wings knew that if they flew in a very tight box formation, radar systems detected them as a single large object. SAMs were automatically aimed at the center of such a target, and often would thus pass harmlessly through the center of the "box" formed by the aircraft.

Note: True to life, SA-2 missiles in the game are not very accurate, and are especially vulnerable to jinking. Wait until one gets close, then pull hard on the stick. If you can handle the extra stress of evading SAMs, you might consider flying above maximum AAA range (25,000ft) yet still within maximum SA-2 range (50,000ft).

Air-to-Air Combat

Only 3.3% of Navy and 9.7% of Air Force aircraft lost were downed by MiGs. However, the overall air-to-air exchange ratio was low — only 2.5 enemy planes were downed for every U.S. pilot downed, versus 8 to 1 in World War II and 14 to 1 in Korea.* Several factors contributed to this reduced exchange rate.

First of all, the playing field was uneven. NVN Airfields weren't legitimate targets until late in the war, and the air radar installed in and around them combined with the Soviet patrol boats in Haiphong harbor rendered sneak attacks impossible. MiGs were directed entirely by ground control intercept (GCI) stations and would generally attack only when they had the advantage. When the advantage shifted, they were ordered to break off and return to the safety of an airbase.

*Figures were taken from *On Yankee Station: The Naval War Over Vietnam* by Cdr. John B. Nichols, USN (ret.) and Barrett Tillman (Naval Institute Press: Anapolis, MD 1987). Other resources include *Alpha Strike Vietnam: The Navy's Air War, 1964 to 1973* by Jeffrey L. Levinson (Presidio Press: Novato, CA 1989) and *One Day in a Long War* by Jeffrey Ethell and Alfred Price (Random House: New York, NY 1989). Please see the **Bibliography**, p. G.1, for other interesting books and web addresses.

Second, prior to the Vietnam Conflict, only the F-8 Crusader pilots had received advanced combat maneuver training. Advances in long-range weaponry seemed to be making dogfighting skills unimportant, for it was assumed that all engagements would take place from far off. However, air combat in Vietnam proved up-close and intense — the most advantageous condition for North Vietnamese MiGs.

All MiGs carried cannon, and MiG-21s and some MiG-19s carried short-range infrared-homing Atoll missiles. Although it lacked afterburners and often radar, a MiG-17 was capable of out-maneuvering an F-4 and was a bit more maneuverable than an F-8 at lower speeds. A MiG-21 could beat an F-4 in a subsonic turning fight, but MiG-21s and F-8s were fairly evenly matched. So, once the long-range opportunity was missed, aircraft which relied on long-range weapons (in particular the early model F-4s, which had no internal guns) had a decided disadvantage against their Vietnamese counterparts.

In addition, the long-range, radar-guided AIM-7 Sparrow the Americans carried proved unreliable and ineffective. Visual identification requirements forced pilots to use the missiles at shorter ranges than they were designed for. The missiles required a complex sequence of tracking and locking, and were simply ill-suited for intense, close combat. Plus, their sophisticated weaponry had a much greater tendency to malfunction than shorter-range, IR-guided AIM-9s and cannon. And all Vietnam-era missiles had difficulty tracking when fired during a high-G maneuver or at a target below the horizon.

After Vietnam, it became obvious that the F-8 pilots significantly outperformed the rest in air-to-air engagements. They had cannon and shorter-range missiles, but more importantly, they had received training which enabled them to use these weapons effectively in close fighting. Emphasis returned to pilot training, and the Navy established the Fighter Weapons School, otherwise known as Topgun, in 1969.

Note: In the game, as historically, the most common MiG tactic is to approach from behind, fire off a missile or gun rounds, and then leave. MiG-21s will also close at supersonic speeds from astern, fire a missile and run. They have a small frontal area and are difficult to spot until close. Also, they tend to fly low, in an attempt to lure you down into murderous AAA and small-arms fire zones.

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