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<td><strong>Author(s)</strong></td>
<td>Wolosz, Pamela J.</td>
</tr>
<tr>
<td><strong>Performing Organization Name(s) and Address(es)</strong></td>
<td>Air Command and Staff College Air University Maxwell AFB, AL</td>
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Preface

As a student in early 2000 at the Defense Systems Management College (DSMC) at Ft. Belvoir, Virginia, I became interested in understanding how the newest NATO members procured their weapons systems. I wondered how they transformed their former Warsaw Pact militaries and weapons systems to contribute to the NATO alliance. I was most curious about Poland, which I admired for its Solidarity movement that brought down the Soviet-controlled establishment, because it strongly supported NATO membership. Did the country with the greatest will to be a strong NATO member have a good plan to modernize its military? Using research opportunities at DSMC, I found there was a void of information about Poland’s acquisition and modernization processes because formal processes did not exist. This led me to dig deeper for answers as an Air Command and Staff College student.

I owe thanks to my research advisor Dr. Matthew Schwonek for helping me focus my research and giving me fine doses of encouragement during this project. Next, I could not have completed this paper without outstanding Air University librarian, Diana Simpson, who quickly and cheerfully responded to my many requests for information. LTC(P) Peter Podbielski, Chief of the Office of Defense Cooperation in Warsaw, offered me plenty of first-hand insight into the Polish Air Force’s journey of modernization and reform. He is the real expert in this area and has my admiration for charting a potential acquisition process for the Polish military. Finally, I thank Dr. Richard Muller for reviewing my paper and suggesting improvements. I give my sincere appreciation to all.
Abstract

In 1989, years of Soviet control of the political, economic, and military systems had left Poland unprepared to significantly contribute to NATO. However, Poland accepted the challenge of building a capable air arm for NATO as it began to reform its political system, modernize its Air Force, and strengthen its economic system to support Air Force modernization. This research paper analyzes Poland’s progress in implementing these reforms and is grounded in three themes: the political progress of reforming the civil-military structure; the economic progress of reforming Poland’s defense budget and defense industry to support Air Force modernization; and the military’s progress in modernizing its Air Force weapons. This paper does not provide specific solutions but, instead, gives a general understanding of the long road Poland has embarked upon to transform itself from a Soviet satellite into a valued, all-around contributor to NATO.

Poland’s attempts at political reform have mostly succeeded whereas its economic reforms have failed to support Air Force modernization. Likewise Air Force modernization is stymied behind a series of plans much too ambitious to be implemented within unstable defense budgets. Poland, however, is investigating more economical ways to modernize its Air Force, for example, by leasing an interim modern fighter capability. The speedy incorporation of Poland into NATO will be followed by years, if not decades, of continuing military and economic reform to lift Poland to the level of NATO partnership of which it dreams.
Chapter 1

Introduction

To the citizens of my own country I say ... by expanding NATO we will help to prevent another war involving Poland, another war in Europe, another war that also claims the lives of Americans

—Former U.S. President Bill Clinton

The winds of change blew swiftly. The accession of three countries into NATO in March of 1999 was an unprecedented Western welcome to the new democracies of Poland, Hungary and the Czech Republic. That the blanket of NATO protection now falls over these three countries is amazing, considering that a little over ten years ago, they were members of NATO’s nemesis, the Warsaw Pact.

The winds of change to bring these countries up to NATO standards from a political, economic, and military perspective have slackened. Years of Soviet control of the political, economic, and military systems left these countries unprepared to contribute significantly to NATO. Poland, a proud country that historically desires to be a contender on the world scene, has accepted the challenge of providing NATO with a strong air arm. In order to succeed, it began three critical tasks: reform its political system to embrace a balanced civil-military relationship, modernize its Air Force to contribute to NATO missions, and strengthen its economic system to sufficiently support Air Force modernization.

The following analysis of Poland’s progress in implementing these reforms to cement NATO membership is grounded in three themes: the political progress of the civil-military
structure as expressed in Poland’s guiding documents such as the Constitution and National Security Strategy; the economic progress of Poland’s defense budget and defense industry to support Air Force modernization; and finally, the military progress in modernizing its Air Force for NATO. This analysis does not offer specific solutions but instead provides a broad brushstroke of the complex political, economic, and military issues surrounding Poland’s contribution to NATO and its Western allies. Its intent is to provide a general understanding of the long road Poland has traveled to transform itself from a Soviet satellite to a country determined to become a valued, all-around contributor to NATO. We owe such an understanding to our new partner in an important alliance that ensures peace and stability in Europe.

Although reviews of Poland’s political transformation since the fall of Communism are not uncommon, few English language authors analyze Poland’s military transformation in the post-Communist era. Andrew Michta is perhaps the most prolific and comprehensive in his military reform analysis. He also specifically discusses Air Force modernization. After reviewing Poland’s military from all angles, historically, economically, geopolitically, and strategically, he concludes that Poland can easily become a contributor to NATO by strengthening its communications compatibility and national infrastructure. Costly Air Force modernization is not essential for the immediate future. Paul Latawski also focuses on military reform, especially force reductions, since the end of the Cold War. He postulates Poland needs a clearer vision of its contribution to NATO before it can build a suitable modernization plan. Therefore, he applauds government delays in procuring expensive modern aircraft to replace outdated Soviet-era relics. Both Michta and Latawski had hoped the modernization plan “Army 2012” would give the Polish government a foundation upon which to build a coherent, affordable
modernization program. However, the plan is now irrelevant and all but dead, a victim of an insufficient budget. Finally, Dale Herspring focuses on the sometimes contentious and sometimes floundering civil-military relationship, which at times drags the military into the middle of political power plays.

The scholarly literature does not cover all hurdles to a reformed Air Force. Authors have not analyzed how the lack of a planning, programming, and budgeting system affects Air Force reform and modernization. The Naval Postgraduate School has developed a planning, programming, and budgeting system specifically for the Polish military based on the U.S. process. Other than ongoing work at the Naval Postgraduate School and Michta’s high level review, there is no assessment of the absence of a requirements generation process and how that affects weapon systems prioritization given Poland’s austere budget. Also, the literature has been silent on any linkage between Poland’s push to minimize budget deficits to meet European Union standards and an inadequate military modernization budget. It is not clear if Poland’s desire for EU acceptance will override its desire to be a viable NATO contributor.

Notes

Chapter 2

Poland’s Pride

I, a serviceman of the Polish Armed Forces, hereby swear to serve the Republic of Poland faithfully, to defend its frontiers and independence, to abide by the Constitution, to guard the honour of Poland’s servicemen and protect the Colours. If need be, I swear to spare neither my own blood nor life for my country. So help me God.

—The Oath of Allegiance for the Polish Armed Forces

The Cold War is over. It did not end with the deafening explosion of bombs but with the profound hush following an interminable, howling blizzard. The political, economic, and military systems of 1989 reflected the years of Soviet mismanagement that propelled the proud tradition of the Air Force into irrelevancy.

Poland’s Politics, Economy, and Military in 1989

Poland was one of the first Warsaw Pact countries to emerge from Soviet rule under which it had been chafing since the end of World War II. The Poles were never faint of heart in voicing their discomfort with the situation. In 1956, worker riots in the western city of Poznan forced the Polish government to direct the Soviet-led Polish Army to restore order. In 1970 Poles expressed dissatisfaction with Communist government control by rioting over food prices. Finally, the last blow to Soviet rule came in the early 1980’s when a cohesive group of trade unions, Solidarity, led strikes in the country’s industrial centers. In an attempt to restore order to disrupted functions, the government declared martial law in December 1981. The Polish
Communist party revealed its bankruptcy and relinquished its power to the Polish military led by General Wojciech Jaruzelski when the military enforced martial law. The Communist party was never able to regain its lost authority. The unprecedented “Round Table” discussions between Solidarity leaders and the Polish government opened the door to the collapse of Communism and military rule. The rise of democracy then followed with free Senate and limited Sejm elections in 1989.

The end of the Cold War ended Soviet control of Poland and voided the Warsaw Pact. The newly elected Polish government, led by conservative Lech Wałęsa, thus sought to realign itself with Western political, military, and economic systems to reinforce its independence. As Poland soon discovered, a country’s political, military, and economic systems are intertwined. Fixing one of the systems requires the others to be aligned and healthy. In 1989 these three systems were extremely out of kilter with the Western styles and beliefs the Poles sought to emulate.

The political situation was one never before witnessed in Polish history. Although Polish “republics” had existed in the past, they were never true democratic republics. In the 17th century, the elite class had enjoyed a liberum veto whereby a single representative to the parliament, or Sejm, could nullify a decision despite majority consensus. Interwar parliaments were weak and did not always represent the values and concerns of the common Pole. In fact, Poles held the Parliament, the state administration, and the judiciary system in low esteem. Despite the low esteem in which the public held parliamentarians, the number of political parties grew during 1989 to 1991 from one, the Polish Communist Party (PZPR), to almost 30. It is not clear whether direction from a legislative branch with so many political parties can be anything but muddled and fragmented. Whatever the case, the Poles emerged from Communism politically challenged.
The military at the end of Communist rule was a vestige of Soviet rule. Extremely politicized and unaccustomed to civilian control, it was flush with outdated Soviet weapons systems, but limited in funds to employ and maintain them. The military doctrine under Soviet control was one of massive offensive forces and firepower flowing toward Central Europe to engage the Western threat. In fact, the Polish Army was the second largest in the Warsaw Pact with approximately 450,000 personnel. The military also acted as an arm of the centralized political system and ensured Party control. Stalin set this doctrinal concept in motion when he purged the post-World War II Polish military and put a Soviet officer in control of the Polish Army. In addition to acting as chief of the Armed Forces, this Soviet officer also assumed the position of Minister of Defense, in Western regimes a civilian position usually meant to maintain a system of checks and balances between the military and civil government. This aspect of the Communist-era doctrine allowed the Soviet government to quell action of the Polish populace aimed at bringing down the state government. This guidance culminated as the military enforced the 1981-1983 martial law against the Solidarity uprising. At that time, the military became the ultimate political tool when the Communist Sejm elected General Jaruzelski as President. He became the head of the military as well as the civilian, executive body. The Poles had to eliminate the strong political influence of the military in hopes of NATO accession.

Poland’s economy also reflected Communist control and required a great deal of reform measures to support a free market. The economy of Poland was solidly agricultural and dependent on owners of small, unmodern farms. Poland’s state-owned industry relied on heavy, inefficient, smoke-belching factories, such as steel and chemical manufacturing, which technological advances such as computerization and automation had left behind.
An informal economy matched the government’s formal economy. Bartering, hoarding, and under the counter transactions filled in the gaps left by a formal economy riddled with shortages. Swirling around this Soviet-based economy was the economic burden of the extensive social safety net common to Communist countries. The government provided shelter, employment, and health care to the Polish people regardless of the damaging effect on the economy. Based on agriculture, inefficient industry, and rampant bartering, the Polish economy needed a strong dose of reform before it could fund the military transformation necessary for NATO accession.

Today the current government, a coalition of “postcommunists” from the Democratic Left Alliance (SLD) and Polish Peasant Party (PSL), is in the hands of President Aleksander Kwasniewski and Solidarity Electoral Alliance (AWS) member Prime Minister Jerzy Buzek. This government has not shied away from pushing Poland’s political, economic, and military reforms. Politically, it ratified Poland’s 1997 Constitution. Militarily, it presided over Poland’s 1999 accession into NATO. Economically, it eagerly pursues its next victory: membership into the European Union in 2003.

The Proud Tradition of Polish Air Power

Air power in Poland was born before Communist control stifled the country. Its history is steeped in proud tradition and surprising prowess that dates back to a time before World War I when Poland was partitioned between Russia, Prussia, and the Austro-Hungarian empire. As early as 1910, Poles from the Russian-controlled partition were completing pilot training in France. By the end of the decade, World War I offered Polish pilots a chance to hone their combat flying skills and airmanship. The Poles flew aircraft donated by the French government as World War I drew to a close and the partitioned Poland became the Republic of Poland. Poland’s aviation glory days peaked during World War II. Although the Germans overwhelmed
the Polish Air Force in the early days of the Nazi invasion, Polish pilots based in France and then England flew throughout the war. These pilots flew over 105,000 operational sorties and destroyed 746 enemy aircraft. Finally, during the Communist era, the Poles fell under the wings of the Soviets. As such, Polish military aviators trained in Soviet-designed aircraft to uphold the Warsaw Pact against the Western threat.

Tradition tells not only of a capable and sometimes outstanding Air Force but also an aviation industry suited to producing weapons systems of foreign designs. The earliest Polish aviation plants maintained only foreign-designed and foreign-built aircraft. In the early 1920’s, companies such as the Central Aviation Workshop in Warsaw, the Kraków Workshops, and the Lwów Workshops found their niche by repairing imported Fokkers, Breguets, and Balilas. By the mid-1920’s, two Polish companies bought licenses for the French Potez and Hanriot aircraft and produced them at a high quality.

The aircraft industry then hit hard times as the budgetary drawdown typical of the interwar period resulted in cancelled orders. Subsequent consolidation of the private, independent factories and workshops resulted in nationalistic, government-controlled entities. Following World War II, the Soviets assumed control of the Polish aviation industry. By the early 1950’s, Stalin effectively continued the tradition of limiting organic Polish military aircraft designs when he halted all new Polish aircraft initiatives except for a Polish-designed trainer. Instead, Polish aircraft factories, all renamed WSK, or Transport Equipment Manufacturing Centers, focused on building Polish variants of another country’s design. For example, WSK-Mielec built the LiM-5, a Polish variant of the MiG-17. The Poles obtained licenses to produce the Soviet-designed YAK-12M utility plane and the Mi-1 helicopter. Moreover, Polish aviation industry’s success in manufacturing foreign-designed aircraft is best exemplified when WSK-Mielec became the
world’s sole source for the Soviet-designed An-2 Colt utility biplane. Jerzy Cynk, official historian of the Polish Air Force Association, notes the Polish aviation industry was a leader within the Warsaw Pact when it produced 10,000 aircraft from 1950 to 1970.22

Despite its strength in the midst of the Communist era, the aviation industry at the end of the Communist era was adept only at building variants of Soviet designs and selling its wares to a captive Warsaw Pact market. Dependent on nationalization, inefficient aviation plants survive but probably cannot support extensive, present day modernization of the Polish Air Force at a reasonable cost.

Poland’s Air Force Today

Poland’s Air Force merged with the Air Defense Forces after the end of the Cold War to form the Wojska Lotnicze i Obrony Powietrznej (WLOP) or Air and Air Defense Forces.23 Its new structure established a more simplified command and control system for homeland defense. The WLOP encompasses air forces, air defense forces, and early warning radar forces. The bulk of the WLOP force counters hostile airborne attack. The 2\textsuperscript{nd} Corps covers the northern section of Poland and the 3\textsuperscript{rd} Corps covers the southern section. Each is independent of the other’s fighter and bomber units, missile units, command and control forces, and logistics support. Commander-in-Chief of the WLOP, Lieutenant General Andrzej Dulęba, is responsible for protecting Poland from air attack and protecting “regrouping forces, convoys, and sea bases.”24 Figure 1 shows the organization of the WLOP.
As of 1 January 1999, 43,000 soldiers, of whom 17,200 were professionals, filled the ranks of the WLOP. Its force structure includes 282 combat aircraft, 146 trainer aircraft, 95 troop helicopters, 38 air defense missile units, and 260 mobile radar stations. The WLOP’s inventory of Soviet combat aircraft testifies to its former Warsaw Pact membership. The most advanced fighter is the MiG-29 Fulcrum, an all-weather, medium range, air-to-air fighter. The MiG-21 Fishbed is a light fighter interceptor; however, the WLOP uses the Fishbed only for pilot training and will retire it in the near future. In the air-to-ground mission, the WLOP flies the Su-22 fighter-bomber. All combat aircraft entered the WLOP inventory in the 1980s except the MiG-21, which first appeared in the 1960s. In addition to combat fighters, the WLOP also flies jet and turbo-prop trainers and transports.

Even under an improved organizational structure combining air and air defense forces, the WLOP marginally meets its mission of homeland air defense. More importantly, obsolescence
and lack of interoperability prevents the WLOP from contributing significantly, if at all, to NATO operations across the spectrum from deterrence to precision air strikes. Even the most advanced fighters, the MiG-29 and Su-22, require basic Global Positioning System (GPS) and Identification Friend or Foe (IFF) upgrades before NATO can even consider them potential assets.\textsuperscript{29} On top of that, training on these aircraft is at a discouraging low. In 1999 Polish pilots averaged only 55 training hours per year compared to the NATO standard of 180.\textsuperscript{30}

The state of Polish political, economic, and military affairs in 1989 foretold that Air Force modernization would not happen in a matter of months or even a matter of years but perhaps a matter of decades. However, the Poles staunchly pushed forth with reforms despite a lack of precedence for transforming a Communist, Warsaw Pact country into a democratic, NATO country.

Notes

\textsuperscript{2} Andrew A. Michta, \textit{The Soldier-Citizen: The Politics of the Polish Army After Communism} (New York: St. Martin’s Press, 1997), 33.
\textsuperscript{5} Ibid., 62.
\textsuperscript{6} Wiatr, 33.
\textsuperscript{7} Millard, 27.
\textsuperscript{8} Millard, 115.
\textsuperscript{11} Wiatr, 108.
\textsuperscript{12} Michta, \textit{The Soldier-Citizen}, 33.
\textsuperscript{13} Wiatr, 175.
Notes

14 Millard, 24.
15 Millard, 27.
16 Leszek Balcerowicz, “Poland’s Transformation,” Finance & Development 37, no. 3 (September 2000): 16.
18 Cynk, History of the Polish Air Force 1918-1968, 5.
22 Cynk, History of the Polish Air Force 1918-1968, 246.
23 Cynk, “Dedication and Motivation: 80 Years of Poland’s Air Force,” 150.
25 Ibid.
26 Ibid.
27 Ibid.
29 LTC (P) Peter Podbielski, Chief, Office of Defense Cooperation, Warsaw, Poland, telephone interview by author, 8 February 2001.
30 Dr. Paul Latawski, The Transformation of the Polish Armed Forces: Preparing for NATO (London: The Royal United Services Institute for Defence Studies, 1999), 49.
Chapter 3

Success: Creating the Basis for National Defense

Mindful of the bitter experiences from the time when basic freedoms and human rights in our Fatherland were being broken...we enact the Constitution of the Republic of Poland.

—Excerpt from the Preamble of the Constitution of the Republic of Poland

Poland’s governments from the end of the Cold War to the present have never doubted the necessity of becoming a NATO member. In an unprecedented show of solidarity, nearly the entire gamut of Polish political parties supported the 1999 ratification of the NATO membership treaty. The Polish people also supported NATO accession with a 72% approval rating as of January 1996. Working toward a goal of NATO integration, Presidents as diverse as right of center Lech Wałęsa and leftist Aleksander Kwasniewski supported democratic reforms leading to an improved civil-military relationship.

Underlying Documents

After considerable debate, President Aleksander Kwasniewski signed his country’s governing Constitution on July 16, 1997. This document closed the chapter on Communism and opened the door to democracy. The new Constitution establishes freedoms such as those found in the United States Bill of Rights: freedom of speech, freedom of religion, and the right of assembly. From the military perspective, the Constitution defines the powers of the President over the military. In Poland’s Constitution, the democratically elected President holds the
position of Supreme Commander of the Armed Forces in peacetime and executes this function through the Minister of Defense. The President also appoints a Prime Minister. In times of war, the President names a Supreme Commander of the Armed Forces with the recommendation of the Prime Minister. However, the Prime Minister, not the President, names the Cabinet, or Council of Ministers, including the Minister of Defense. The Council of Ministers is important since it formulates the annual government budget, including that of the Defense Ministry. The legislative body of Poland’s republic is a democratically elected Parliament made up of the lower body, Sejm, and the upper body, the Senate. This body formulates laws for the military, such as legislation governing the length of service of conscripts. These elected officials provide the legislative checks and balances normal to a democracy.

One of the newest documents underpinning government reform is the Security Strategy of the Republic of Poland adopted on 4 January 2000. This document replaced the Tenets of the Polish Security Policy and Security Policy and Defense Strategy of the Republic of Poland from 1992. These documents were sorely in need of replacement because they did not reflect Poland’s NATO membership. Their emphasis was on solitary defense of the homeland versus the collective defense found under the NATO alliance umbrella. The updated Security Strategy recognizes Poland has no external threat and focuses on the doctrine of defense with a small standing army versus the Communist doctrine of offensive mass with a large army. The document also recognizes global threats such as the proliferation of weapons of mass destruction, economic threats, terrorism, refugee flow, environmental disasters, and regional conflicts especially from its neighbors to the east.

Although Poland reserves the right to maintain its sovereignty and territorial integrity, it links its own security to the NATO alliance and the European community. The Security Strategy
outlines Poland’s desire to integrate with NATO via “active participation in developing the Organisation’s political and strategic decisions and full military integration.” The Security Strategy also calls for the government to maintain, restructure, privatize, and modernize its national defense industry in order to accomplish “full integration.” In addition it stresses the need for a stable system for planning and financing the procurement of weapons systems similar to a PPBS used by the United States; today Poland lacks such a process. The process described in the Security Strategy is based on a six-year program which will “render the forces interoperable, as soon as possible, with NATO structures, and to gradually bring them up to the Alliance’s organisation and technological standards.” Ten short years after the Cold War, the underlying Constitution and Security Strategy mark Poland as a democratic nation with a modern military doctrine.

**Poland’s Civil-military Relationship**

Given the politicization of the military under the former Communist regime, the democratic Polish government felt compelled to reform its civil-military relations as early as possible to gain acceptance into NATO. Civilian control of the military is important to establishing strategic security goals reflecting the interests of the newly democratic country and then providing the budget necessary to achieve the goals. Civilian control provides stability and legitimacy to military actions and military defense.

Although the 1997 Constitution provides the guiding structure for presidential responsibilities, it does not outline authoritative responsibilities of other civilian positions such as the Minister of Defense. In addition, political and military cultures historically prevented sound civil-military relationships. Civil-military control is an old problem, going back to the 1920s. In the recent past, confusion reigned as leaders tried to untangle the incongruity of the
responsibilities of the Ministry of Defense who answers to the Sejm and the responsibilities of the President who is the Supreme Commander. In 1994, matters between then President Lech Wałęsa and the Sejm-supported Minister of Defense, Piotr Kolodziejczyk, flared as they both vied for direct control of the military. A serious crisis ensued and resulted in the fall of Prime Minister Wlademar Pawlak and his government. The ascent of the Leftist President Kwasnieski produced a more consolidated approach to civil-military control. Although his government passed the Law of the Office of Defense Minister in 1996, civil-military relations remain an ongoing problem. As late as September 2000, current Defense Minister Komorowski railed against the lack of necessary laws to “conclusively resolve” the problems of “the overall command of defense.”

The relationship between the Minister of Defense and the Chief of the General Staff has also traveled a rocky road and remains unresolved. In the early 1990’s, reform of the civil-military relations resulted in separation of the civilian and military branches of the Defense Ministry. This separation led to a struggle between the Chief of the General Staff and the Minster of Defense as to where command functions lie. The current Chief of the General Staff Czesław Piatas believes the law is in his favor and defines his roles as commander of the Armed Forces on behalf of the Minster of Defense. On the other hand, Defense Minister Komorowski believes he commands the Armed Forces through the Chief or with his assistance. Whether the General Staff is a planning organization, as the Defense Minister believes, or a command organization as the Chief believes, the debate is a distraction from pressing military issues such as Air Force modernization.

The final piece in the civil-military relationship puzzle is the Sejm. As a democratically elected legislative body, the Sejm should support a stable, realistic long-term defense policy
through its National Defense Committee. Instead, the Sejm has left military direction to the Minister of Defense.\textsuperscript{14} In late 1999, Sejm Speaker Maciej Płażyński blamed previous Sejms for relying on either the Ministry of Defense or the Polish General Staff to draft all defense-related laws.\textsuperscript{15} This is a worrisome sign of its lack of maturity and parliamentary expertise about military issues.

Although some aspects of the civil-military relationship remain unresolved, the underlying political documents of the Republic of Poland adequately support military reform and NATO requirements. Moreover, a political foundation grounded in democratic principle mandates the Polish government shape an Air Force modernization program to meet the national security goals of the people as well as those of the NATO alliance.

\textbf{Notes}

\begin{itemize}
\item \textsuperscript{4} \textit{Poland’s 1997 Constitution: Summary of Key Provisions}.
\item \textsuperscript{6} Ibid.
\item \textsuperscript{7} Ibid.
\item \textsuperscript{9} Herspring, 92.
\item \textsuperscript{10} Andrew A. Michta, \textit{America’s New Allies: Poland, Hungary, and the Czech Republic in NATO} (Seattle: University of Washington Press, 1999), 50.
\item \textsuperscript{12} Michta, \textit{America’s New Allies}, 51.
\end{itemize}
Notes

Chapter 4

Disappointment: The Long Road to Air Force Modernization

We are fully aware that the resources we allocate for our defense spending are not sufficient from the point of view of modern NATO members and the requirements of NATO, so we are forced to go through a very radical reform of Poland's defense system, and modernization of the Polish Air Force is part of that problem.

—Poland Minister of Defense Bronislaw Komorowski

Despite the radical changes within the political structure accommodating NATO partnership, Poland’s Air Force has not changed much over the past ten years. Although Poland promised NATO it would modernize much of its Air and Air Defense Forces, the defense budget currently does not support such an ambitious program. Despite Poland’s search for creative ways to obtain modern aircraft without breaking its meager budget, the end of the road is not in sight.

The Defense Budget: Room for Modernization?

In the face of overwhelming odds, the Polish economy has grown at a comfortable and impressive rate of approximately 5% a year since the economy transformed from a centrally controlled economy into a free market economy. Poland has made great progress in growing a vibrant economy due in part to the shock therapy treatment also known as the Economic Transformation Program, led by Finance Minister Leszek Balcerowicz in the early years of the new Polish Republic. Under this program, the Poles painfully stabilized the ex-Communist economy and introduced market-driven mechanisms. Also during this time, the Poles focused
on reforming domestic matters such as health care, education, social security, and the transportation infrastructure rather than addressing military modernization issues. However, in an action that continues to drag the Polish economy down, the Polish State maintained control of many troubled industries such as the defense and steel industries. Politicians foresaw a much more politically unappealing outcome by privatizing these ailing economic sectors. For example, up to 18,000 defense factory workers, or 28%, stand to lose their jobs under defense industry privatization. Until the Polish government divests itself of inefficient industries, it will continue to bolster them with money better used for Air Force modernization.

Although Poland enjoyed the fastest economic growth in the Central European region from 1995 to 1999, the growth has not been sufficient to fund Air Force modernization. As shown in Figure 2, the defense budget as a percentage of Gross Domestic Product (GDP) has not seen the growth necessary for a large-scale modernization. In fact, the 2001 defense budget is only 1.95% of the GDP, less than the 2% guidance specified in the Strategy for the Defense of the Polish Republic and recommended by NATO and less than the 3% target set by 1995 legislation.
Defense modernization is an insignificant percentage of the total defense budget. For example, the 2000 defense budget targets only 10.7% of funds for modernization, including procurement and research and development. Therefore, out of only $350 million available for modernization, only $52.4 million was earmarked for research and development. Military pensions and personnel spending absorb the bulk of the budget, leaving little room for modernization. As Figure 3 shows, pensions accounted for 26.6% and personnel accounted for 32% of the total expected expenditures in the 2000 defense budget.
The Chief of the General Staff recognizes this budgetary constraint but does not advocate further reduction in troops as a way to fund modernization programs. He does not wish to cut past the target size of 150,000 soldiers, the minimum number needed to fulfill the Armed Forces’ NATO and domestic security goals. Raiding the military pension funds as a means to bolster modernization funding would be political folly as well.

In comparison with the military expenditures of other NATO countries, Poland’s expenditure per capita ranks near the bottom. As Figure 4 shows, in 1998 Poland spent less than half per capita on military expenditures than Spain, a NATO country of roughly the same population. It also shows Poland ranks between the other two new NATO members from Eastern Europe for military expenditure per capita. Considering Poland must not only maintain but modernize its forces, the defense budget is very lean compared to other NATO countries.
Poland’s Defense Industry

A thriving in-country defense industry could fuel modernization of Poland’s Air Force. An efficient, productive defense industry is important in many respects. First, foreign companies seeking to sell modern aircraft to Poland would have more flexibility and options to partner with internationally competitive Polish defense contractors if they boasted such qualifications as contemporary tooling and computerized work planning. These options run the gamut from cooperation in contractor/subcontractor relationships and research and development partnering to a license agreement whereby Polish aircraft manufacturers produce foreign-designed aircraft in Poland. Poland’s defense contractors for many years have successfully produced foreign-
designed weapons systems. For example, the Poles manufactured many Soviet-designed weapons systems in their factories, including the T-72 tank and the An-2 aircraft. However, more recently, the British have been at the forefront of Western countries instituting some of these partnering concepts. The Polskie Zakłady Lotnicze (PZL) aviation plant in Mielec, Poland produces parts for the British Aerospace Hawk jet trainer. One of the Polish Army’s primary procurements, a 155mm self-propelled howitzer, will be manufactured in Poland under license and based on the British AS90 Braveheart design. Defense Minister Komorowski has invited Britain and all interested countries to partner with Polish industry by licensing a foreign design for a modern wheeled AFV to be manufactured in Poland.

Poland must modernize its aircraft industry to successfully compete in the international marketplace. In 1996, 31 out of 90 Polish factories producing defense articles formed the core of the organic industrial base. More importantly, currently only six companies meet world technology standards. The Polish Council of Ministers recognized the need to upgrade these out-of-date facilities and their manufacturing processes by supporting the Defense and Aircraft Industry Transformation Program: 1996-2010. The Defense and Aircraft Industry Transformation Fund, established by the program of the same name, provided financing for factory and process modernization. Its intent was to kick-start the aircraft industry out of the vicious cycle of not attracting customers because of its inefficiency, which in turn generated no income to update factories to attract new customers. It is not clear this fund benefited the Polish aircraft industry, since as late as 1999, pressure was high on the Polish government and Ministry of Defense to create another national defense industry fund and to award military modernization contracts to indigenous defense plants. For example, the Solidarity and All-Poland Alliance of Trade Unions orchestrated defense industry worker strikes calling for increased government
orders for Polish produced arms and denouncing the government’s “lack of support for defense plants.”

In addition, two-thirds of the defense plants were deeply in debt and owed more than $245 million. Major aviation plant PZL-Mielec declared bankruptcy in 1998 and received $10 million in new capital from the Polish government to continue operations.

The Ministry of Defense leadership is acutely aware of the urgency to transform not just the aviation industry, but the entire defense industry, into a competitive sector of the Polish economy. In 1999, then Defense Minister Janusz Onyszczewicz stressed restructuring and privatization as keys to a viable Polish defense industry. However, the initial pain of privatization has rendered the Minister’s actions ineffective. Not impervious to political pressure, Defense Minister Onyszczewicz personally visited a firearm plant in central Poland in 1999 to deliver the news of a contract award to the Łucznik steel firm versus a foreign company. However, the steel maker has been struggling with financial difficulties for some time. This contract may merely prolong the government lifeline to an unhealthy company hanging on by a thread.

Fear of privatization is holding the aviation industry back from converting to a modern industry. Unlike many of the small to mid-sized companies, the Polish government and the international community helped transform to privately owned entities, the aviation industry remains in the shadow of the Communist era as a state-controlled entity. The state provides a sustaining lifeline to the companies, exemplified by the $10 million government bailout of PZL-Mielec. Production orders generated by Poland’s aircraft modernization program will unlikely generate enough business to keep all aviation plants alive. At the height of the Cold War, Poland’s aviation industry approached an output of 1000 aircraft a year. However, after the collapse of its Warsaw Pact trading partners and the ensuing decrease in defense spending of
countries around the world, Poland’s aviation industry could no longer compete successfully in the global aviation market.

In late 1999, the Polish government took its first step to privatize the aviation industry when it passed two laws, one supporting defense industry privatization and the other supporting offset requirements for foreign military equipment purchases.\textsuperscript{27} The first law allows defense companies to write off privatization costs. In addition, it targets government profits from the sale of defense plants to fund research and development, promotion of Polish weapons systems to foreign markets, and its own procurement of modern Polish-made weapons systems. The law is not a fire sale, however. The government plans to maintain ownership of seven defense plants.\textsuperscript{28} Despite existing legislation to ease Polish defense industry’s privatization, neither the government nor the defense industry has made any substantial progress. The \textit{Sejm}’s Defense Committee worries that up to 80\% of defense workers stand to retire, retrain, or simply become unemployed as a result of the industry restructures.\textsuperscript{29} However, once Polish government and defense industry deal with the initial pain, the future for the defense industry will be secure when the surviving plants are competitive and capable.

The second law, the Offset Act, directly generates contracts for the defense industry. Enacted on 10 September 1999, this law requires foreign companies entering into military supplies and equipment contracts with Poland to also enter into contracts to provide offsets to the Polish defense industry, or other Polish industry, at least equal to the value of the original contract.\textsuperscript{30} The Offset Act applies only to contracts worth more than EUR 5 million.\textsuperscript{31} Probably because of the law’s direct benefits to the defense industry and the relative ease of enforcement, Poland has already awarded its first offset contract in November of 2000.\textsuperscript{32}
Air Force Modernization Plans

The lack of modernization funds and healthy defense industries require the Defense Ministry to develop a coherent plan to best use its limited assets. Shortly after political reform, Polish leaders adopted a string of reform packages to guide the structure and priorities for the military. *Structure 1992* and *Armed Forces 2010* attempted to set policy and targets for military reform.\(^{33}\) However, they were unrealistic in their scope and not widely accepted. Next came *Army 2012: The Foundation of the Modernization Program for the Armed Forces 1998-2012*.\(^{34}\) This document divided priorities for modernization and acquisition into eleven categories, including aircraft and helicopters.\(^{35}\) It guided changes to the budgetary process and the defense industry. Eventually the government expanded the Army 2012 document to include 65 of the NATO Target Force Goals of 1998.\(^{36}\) However, the Poles were too optimistic with their forecasted defense budgets and Army 2012 seems to be in a coma if not dead. In early 2000, the Defense Affairs Committee of the Council of Ministers determined the Army 2012 goals for 2000 were much too ambitious and the defense budget was too small to fund many of the projects.\(^{37}\)

Despite the problems with Army 2012, the Poles have not given up formulating modernization plans. The latest modernization plan is *The 2001-2006 Program for the Development of the Armed Forces* or simply “The Six Year Plan.” Using *A Strategy of Public Finance and Economic Growth for Poland in 2000-10* as a financial foundation, this plan covers the years 2001 through 2006 and is in step with a similar NATO plan to meet additional NATO Target Force Goals.\(^{38}\) The Six Year Plan prioritizes requirements, establishes milestones, programs resources to meet objectives, and provides guidance for modernization of the Armed Forces. Among the designated projects are multi-role fighters, datalink and satellite communication, strategic airlift, and computer aided exercise capability.\(^{39}\) Defense Minister
Komorowski characterizes the plan as “allowing us to stop dreaming and start real life.”\textsuperscript{40} He indicated the Six Year Plan will reflect the tight 2001 defense budget. The plan stands out from former defense plans thanks to an unprecedented, associated law to guarantee funding for the program’s entire six years instead of one year at a time.\textsuperscript{41} However, given the fiscal realities of the austere 2001 budget, the outyear funding must be substantial if the Six Year Plan is to become more useful than the discarded plans of the past.

**Air Force Modernization Alternatives**

Poland’s Air Force modernization program is a reflection of the military, economic, and political realities discussed to this point. Militarily, to fulfill Poland’s desire to recapture the pride of the early Air Force days and to hold its head high among the ranks of NATO nations, Air Force modernization is a must. The MiG-21 is slated for retirement. The Poles retired the minimally capable MiG-23 in 1999\textsuperscript{42}. In addition, the Su-22 and the MiG-29 require modernization to compete on today’s battlefield in support of NATO. The Poles promised NATO they could supply NATO-compatible fighters for the NATO Rapid Reaction Force by 2003.\textsuperscript{43} NATO is waiting to see if Poland makes good on its promise. Although Edgar Buckley, the chairman of NATO’s Defense Review Committee, applauded Poland for its “complete” political integration into NATO, he stressed the country has a long way to go before military integration is satisfactory.\textsuperscript{44} NATO Supreme Allied Commander Europe General Joseph Ralston communicated directly to the Polish leadership his concern that defense spending is “too low” to properly modernize the Armed Forces.\textsuperscript{45}

Economically, Poland’s desire to participate in NATO’s doctrine of engagement at all levels of conflict is tempered by its shoestring budget. Therefore, Poland’s Air Force must use creative and relatively inexpensive methods to jumpstart its modernization process through loans, credit,
leasing, offset manufacturing, and surplus weapons. Some of these are already happening within its sister services. In June 2000, the United States delivered one of two surplus Oliver Hazard Perry class guided missile frigates to the Polish Navy; the frigate is the first Navy vessel to be fully compatible with NATO. The U.S. granted the Poles the ships according to the Foreign Assistance Act of 1961. In addition, Germany is offering to lease its Leopard tanks to the Polish Army. Lastly, the Polish Navy is searching for a couple of “second-hand” submarines to replace its obsolete Foxtrot-class subs. France, Germany, the Netherlands, and Sweden are potential sources.

In its attempt to inexpensively procure more modern and maintainable fighter aircraft, the Ministry of Defense plans to lease fighters from another country as an interim solution until funds to procure technologically advanced aircraft such as the Joint Strike Fighter are available. Leasing is an effective way to obtain a capability quickly with little cash up front. However, depending on the terms of the lease, leasing is usually more expensive over time than outright purchase. The Poles were not always contemplating leasing. The Polish government gave the legal affirmation to begin a full-scale modern multi-role aircraft procurement as early as 1995. However, funding to support this political decision never materialized. Promises of a shiny new Polish Air Force melted away under a stream of rhetoric as yearly attempts to procure a new fighter force failed due to lack of funding.

The Poles are therefore attempting to pull together an interim Air Force until the 2012 time period when the purchase of the latest model fighter is more economically realistic. The first step keeps the Su-22 and MiG-29 aircraft flying and makes them interoperable with NATO. In September 2000, WLOP Commander General Dulęba announced the WZL-2 depot in Bydgoszcz would manage a structural life extension program for 98 Su-22s to keep them flying
until 2015.\textsuperscript{51} Part of the Su-22 force may undergo expensive upgrades to its avionics, communications, datalink, radar and munitions capabilities. WZL-2 has also upgraded approximately half of the MiG-29 fleet with IFF and GPS equipment. Germany’s DaimlerChrysler Aerospace offers a state-of-the-art radar, fire-control, electronic warfare and life extension program for the MiG-29.\textsuperscript{52} However, that program is potentially cost prohibitive for the Poles who are just trying to keep their jets in flyable condition.

Besides hanging on to its MiG-29 and Su-22 capability, the Poles are planning to fill out its fighter force with twelve to sixteen Western jets via a lease concept. The two front runners in this competition are surplus F-16 A/B models from Lockheed-Martin and the JAS-29 \textit{Gripen} from a British Aerospace/Saab concern. The Ministry of Defense originally set the cost of the lease at $72.5 million just for the year 2001.\textsuperscript{53} However, the \textit{Sejm} included only $24.2 million in the 2001 budget to initiate the multi-role fighter lease.\textsuperscript{54} “Inexpensive” alternatives such as leasing or accepting surplus weapons systems usually have hidden costs in the required infrastructure to support these weapons systems, as well as in training, facilities, and logistics. Reportedly the F-16 lease offers the actual airframes at no cost; however, the refurbishment and pilot/maintenance training costs could reach as high as $250 million over five years.\textsuperscript{55} Nonetheless, whichever contractor wins the selection process, should it eventually materialize, must meet the 100\% offset requirements for the Polish arms industry as set forth in the Offset Act of 1999.

Politically, Air Force modernization is a divisive issue within the Polish government. Finger pointing, favoritism, and false starts surround the interim fighter selection process. Because Poland does not have an established acquisition process, politicians heavily influence the bidding. For example, Defense Minster Komorowski declared the F-16 offer the only one being
considered by the Polish government. A radical leftist political weekly, *Nie*, grumbled the Defense Minister was planning to “trick its European partners” by “luring them with bids and civilized procedures whilst quietly settling a deal with the United States.” As such, the government is lining up on opposing sides: the SLD and the President favor the *Gripen* while the Ministry of Defense favors the F-16.

Other political influences on the interim fighter lease come not from within Poland but from without. Should Poland become a member of the European Union, it may be forced to maneuver within the constraints of a common European defense procurement agency similar to the already-established *Organisme Conjointe de Cooperation en Matiere d’Armament*, or OCCAR, whose members are France, Germany, Italy and Britain. The EU may affect the fighter competition before Poland is even a member. Prime Minister Jerzy Buzek confirmed that a decision of the interim fighter aircraft purchase would take EU accession negotiations into account. Sweden, offeror of the JAS-29, coincidentally holds the EU presidency for the first half of 2001.

Military realities of an aging fighter force, economic realities of an empty defense budget, and political infighting as well as contractual restrictions to aid the defense industry keep the White Eagle from rising to become a respected power on the battlefield. Poland quickly recognized the need for modernization but has been slow to implement the difficult solutions.

**Notes**

2 Podbielski interview.
3 Balcerowicz, 14.
4 Podbielski interview.
Notes

7 The Armed Forces of the Republic of Poland.
9 http://www.xe.com used to convert złoty currency to U.S. dollars. On 17 March 2001 the exchange rate was $1 US = 4.14 złoty. Original figures were 1.46 billion złotys and 217 million złotys, respectively.
10 Basic Information on the MoND Budget, 14.
11 The Armed Forces of the Republic of Poland.
13 The Armed Forces of the Republic of Poland.
14 Ibid.
17 Ibid.
20 Elzbieta Firlej et al.
22 Michta, America’s New Allies, 66.
23 Kogan, 18.
26 Cynk, History of the Polish Air Force 1918-1968, 246.
29 Ibid.
Notes

32 Holdanowicz, “Polish Air Bases to Get Radar Upgrade.”
33 Latawski, 37-38.
35 Latawski, 51.
39 Podbielski interview and Luczak, 21.
40 Luczak, 21.
43 Grzegorz Holdanowicz, “Poland In Bid to Lease F-16s from USA,” *Jane’s Defense Weekly* 34, no. 16 (18 October 2000): 4.
47 To Authorize the Transfer of Naval Vessels to Certain Foreign Countries, 106th Congress, 1st Session, H.R. 1908.
48 Lentowicz, A5.
49 “Poland Seeks to Update Its Submarine Force,” 4.
50 Luczak, 23.
53 Luczak, 23.
58 TS, 6.
Notes

60 TS, 6.
Chapter 5

Conclusions

Completion of the project of the united Europe requires courage. Poles have never lacked it. ... Thanks to that courage, the Central European countries will at last find their place in the European family of free nations, a place that corresponds to our aspirations.

—Polish Prime Minister Jerzy Buzek

Poland dreams of becoming a strong NATO partner politically, economically, and militarily. However, its attempts have met with more disappointments than successes. The Polish people set out early to become a strong NATO member and, politically, they have succeeded. The 1997 Constitution reflects the desires of a country to become a healthy player in the Western democratic arena. Despite ongoing differences between the Ministry of Defense and the General Staff, the Polish government created a sound civil-military relationship whereby the Defense Minister and President guide the military.

However, Poland has not yet become a strong modern military partner in NATO with a solid defense budget to support that strength. The force structure of the Armed Forces, the Air Force in particular, is deteriorating under a series of plans much too ambitious to be implemented within unstable defense budgets. The current Six-Year Plan is a concerted effort for the Polish government to finally make good on its promises to modernize the Air Force. However, the 2001 budget is lower than in previous years and indicates the Six-Year Plan may just end up as an overly ambitious plan that is eventually discarded. State control of the plodding, burdensome
military aviation industry is dragging down a sector that, if forced to privatize, could emerge as a self-sufficient, income-producing industry. To compensate for the disappointments in the slow progress made in the modernization and budget of the Air Force, Poland is looking for innovative ways to make the best of the situation. They are investigating more economical ways to modernize the Air Force, for example, by leasing an interim modern fighter capability.

There are many long-term implications for Poland’s successful reform and modernization. For the first time in many years, Poland’s future seems secure and free from threats of invasion or external political control. A reformed and modern Polish Air Force will further stabilize the Eastern European region if neighboring countries judge Poland capable of adequate homeland defense. Also Poland’s Air Force will gain respect within NATO as a contributor, instead of regarded as ineffectual. Secondly, Poland’s success with military, economic, and political reform will legitimize acceptance of former Warsaw Pact countries into NATO. Using the Polish experience as a template, the next group of candidates for NATO may then vicariously learn of promising programs as well as potential pitfalls of realigning with NATO and the Western democracies. In the end, Poland must be honest with itself, its people, and NATO about what reforms and modernization it can accomplish quickly. If not, it will gain a reputation of empty promises from which it may never recover.

The seemingly speedy demise of Communism was actually a result of several decades of Cold War realities. Likewise the seemingly speedy incorporation of Poland into NATO may be followed by years if not decades of continuing military and economic reform to bring Poland up to the level of NATO partnership of which it dreams.
Notes

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