



Army of the Sky

Russian Military Aviation
before the Great War,
1904–1914

Gregory Vitarbo

PETER LANG PUBLISHING

Gregory Vitarbo

Army of the Sky

Russian Military Aviation
before the Great War,
1904–1914



PETER LANG

New York • Washington, D.C./Baltimore • Bern
Frankfurt • Berlin • Brussels • Vienna • Oxford

Library of Congress Cataloging-in-Publication Data

Vitarbo, Gregory.

Army of the sky: Russian military aviation before
the Great War, 1904–1914 / Gregory Vitarbo.
pages: cm. — (Studies in modern European history; vol. 68)

Includes bibliographical references and index.

I. Russia. Armia—Aviation—History—20th century. 2. Aeronautics,
Military—Russia—History—20th century. 3. Air forces—Russia—History—
20th century. 4. Russia—History—1904–1914. I. Title.

II. Series: Studies in modern European history; v. 68.

UG635.R8V58 358.400947—dc23 2011043815

ISBN 978-1-4331-1490-8 (hardcover)

ISBN 978-1-4539-0266-0 (e-book)

ISSN 0893-6897

Bibliographic information published by **Die Deutsche Nationalbibliothek**.
Die Deutsche Nationalbibliothek lists this publication in the “Deutsche
Nationalbibliografie”; detailed bibliographic data is available
on the Internet at <http://dnb.d-nb.de/>.

The paper in this book meets the guidelines for permanence and durability
of the Committee on Production Guidelines for Book Longevity
of the Council of Library Resources.



© 2012 Peter Lang Publishing, Inc., New York
29 Broadway, 18th floor, New York, NY 10006
www.peterlang.com

All rights reserved.

Reprint or reproduction, even partially, in all forms such as microfilm,
xerography, microfiche, microcard, and offset strictly prohibited.

Printed in Germany

Army of the Sky

Studies in Modern European History

Frank J. Coppa
General Editor

Vol. 68



PETER LANG

New York • Washington, D.C./Baltimore • Bern
Frankfurt • Berlin • Brussels • Vienna • Oxford

To my family, for all of their love and support,

And to Jill, a dear friend always

| Acknowledgments

It would be impossible to name and properly thank all of the many people and institutions that helped me in ways large and small during the evolution of this project from hazy idea to wordy dissertation to finished book. One must eat in order to write, so credit is perhaps due first to my various sources of material support over the years. At the University of Michigan the CIC and Rackham Merit Fellowships underwrote the bulk of my time there, while teaching assistantships through the Department of History and the Center for Russian and East European Studies offered additional support as well as valuable teaching experience. The Mayer Travelling Fellowship provided critical funding for a year of archival research in Moscow. Survival would not have been possible without assistance from my incredibly generous parents as well. Visiting assistant professorships at Franklin & Marshall College and the University of Nevada-Las Vegas allowed me the luxury of continuing to teach and write. At Meredith a course release and later semester sabbatical granted by the Professional Development Committee gave me invaluable time and freedom to continue reflecting upon and revising the manuscript as I went about my usual day job of teaching and advising. My department and dean, Garry Walton, provided additional support for preparation of the manuscript.

Along the way I have met many incredible and supportive people, some of whom may not remember or even be aware of just how helpful they were, and thus might even be surprised about their mention here. The members of my dissertation committee—Julia Adams, John Shy, Ronald Suny, and Jane Burbank—were all incredibly generous in their patience, advice, assistance, and intellectual engagement. Special thanks must go to the chair of my committee and academic adviser, William G. Rosenberg. Throughout my years of study with him, he provided a model of intellectual achievement, professional integrity, and personal empathy that I could only hope to match. His influence upon my growth as a scholar, teacher, and person has been immeasurable. Yet dissertations are not completed without the support of equally miserable fellow-travellers, so I also wish to recognize my graduate school comrades, among them Paul Werth, Mary Cavender, David Althoen, Katherine Pence, and Anna Kuxhausen, who helped me during and beyond my years at Michigan. At research stints at the Hoover Institution, Bakhmeteff Archive of Columbia University, and New York Public Library the staffs were

invariably helpful and accommodating. During my stay in Russia the staffs of the Russian State Military History Archive [RGVIA] and the Department of Military Literature of the Russian State Library were also unfailingly professional, gracious, and helpful. Irina Karapetiants and her staff at the Russian State University of the Humanities provided necessary assistance in navigating bureaucratic life in post-soviet Russia, while Sofia Ivanovna looked after me and my fellow dormitory ex-patriates with motherly concern.

Once home, Von Hadesty was generous enough to share draft copies of his work with me, while Mark von Hagen was kind enough to offer advice on a summer afternoon. During my sojourns in Lancaster and Las Vegas the faculty at each institution made me feel truly welcome and valued; Maria Mitchell, Joseph Fry, and Collin Loader stand out in this regard. At various conferences, meetings, and informal discussions, numerous colleagues, among them Dominick Lieven, Melissa Stockdale, Christine Ruane, Josh Sanborn, Eric Lohr, Peter Holquist, David Schimmelpeninck, John Steinberg, Bruce Menning, and Scott Palmer offered constructive commentary and advice that greatly improved the manuscript. Fellow faculty members in the Department of History and Political Science at Meredith College—Michael Novak, Daniel Fountain, William Price, Clyde Frazier, Hilary Smith, Jeffrey Martinson, Barbara True-Weber, Carolyn Happer—have been incredibly helpful and supportive in so many ways over the years; I have been truly lucky to be surrounded by colleagues who are committed teachers, gifted scholars, and caring, generous people. All of them provided invaluable insights and suggestions. Many thanks also to other colleagues, including Betty Webb for being a wonderful mentor, Diana Davis and Betsy Stewart for enabling daily life in our department to continue, and Robin Baneth for providing timely and invaluable help in the final stages of preparing the manuscript. My editors at Peter Lang, Caitlin Lavelle and Jackie Pavlovic, were patient, supportive, and enormously helpful throughout this process.

As noted, I am sure that I have forgotten to mention others who have contributed to this book in various ways, and for that I sincerely apologize. Moreover, despite all of this invaluable advice and assistance, any remaining failings of the book remain my fault alone.

Grateful acknowledgment is made to Brill Publishers for permission to reprint portions of the following material:

Gregory Vitarbo, "Military Aviation, National Identity, and the Imperatives of Modernity in Late Imperial Russia." In *The Military and Society in Russia, 1450-1917*, edited by Marshall Poe and Eric Lohr, 273-92. Boston: Brill Publishers, 2002.

Reprinted by permission of the publisher. All rights reserved.

| Contents

Acknowledgments	ix
Introduction	1
Chapter One <i>Technology, Community, and Reform in the Russian Imperial Army</i>	9
Chapter Two <i>Flights of Fancy</i>	25
Chapter Three <i>Paths to the Future</i>	49
Chapter Four <i>Institutions and Adaptation</i>	73
Chapter Five <i>Personality, Professionalism, and the Politics of Command</i>	101
Chapter Six <i>Pioneers, Poseurs, Professionals</i>	125
Chapter Seven <i>Officers, Gentlemen, Citizens</i>	161
Chapter Eight <i>Ceremony and Spectacle</i>	181
Conclusion <i>Aviation, Military Culture, and Modernization</i>	207
Notes	219
Bibliography	245
Index	253

| Introduction

In the last decade of Imperial Russia the challenge of “modernization” took on new urgency. Modernization included such processes as the growth of mass representative politics and complex bureaucratic structures, the expansion of the scope and prerogatives of the state, technological advancement, and increasing socio-economic differentiation. The tangible manifestations of such processes—rapid industrialization, the growth of professional middle and industrial working classes, the spread of nationalism, the beginnings of mass political mobilization, cultural ferment—characterized a period of rapid, destabilizing change. Russian thinkers, politicians, and officials devised and modified conceptual and analytical models through which to interpret these processes. In turn, these models helped direct the evolution of such processes by contributing to the framing of governmental and public policy. Moreover, in addition to their own social and cultural heritage, Russians could seize upon the prior historical experience of the self-consciously “modern” Western Europe nations as an archetype through which to perceive, explain, and pass judgment upon the changes affecting Russia.

The dynamics of modernization took on a unique cast within the Russian Imperial army through the period from 1905–1914. As both the primary instrument and prop of tsarist power, the army occupied a crucial place, structurally and ideologically, within the edifice of the regime. By virtue of the demands placed upon it, the scope of the army’s interaction with society was arguably broader than that of any other state institution. From conscription to repression to local administration, some form of military experience was shared, and hence in part shaped, by nearly every tsarist subject. The Imperial officer corps itself cultivated long-standing traditions of its prominent role and status, the ideal of state service which underpinned this status, and the deeper link between tsar and nobility symbolized by such service. Yet despite its apparently deep-seated affiliations to the tenets of the old order, the officer corps was unavoidably caught up in the contemporary political, social, and cultural flux that was challenging those very tenets.

Further, any study of the military in the last years of the Empire must contend with the inescapable shadow of World War I, the Russian Revolution, and the civil war. The upheaval of 1914–1921 has inevitably exercised a powerful influence upon memoirists and historians alike. This influence is

frequently manifested in a “trial and judgment” model of analysis that holds the Russian army to an unforgiving paradigm of modernization and finds it wanting. The leitmotif of such work is the adjudged failure of the army to master objective challenges of technological advancement and military reform and the subsequent price of such failure—defeat in the Great War and the demise of the Russian Empire. This analytical orientation is to an extent understandable. The Russian officer corps in the early twentieth century was not engaged in merely philosophical debates regarding Russia's pride, place of importance, and cultural superiority vis-à-vis the West. Instead, it was in the midst of an increasingly feverish arms race and worriedly anticipating the outbreak of a major conflict, where defeat might mean more than mere humiliation or an anguished re-examination of “Russia.”

Yet the impulse to assign blame frequently leads to a failure to appreciate sufficiently the context, parameters, and set of choices in which contemporaries operated. Military modernization was necessarily a complex and multi-faceted process. At one level it involved efforts to acquire new technology and utilize foreign doctrines and institutional models. The requisite policies and practices were more or less consciously emulated as “modern” or “Western”, or at least allowing Russia to compete with the West. These efforts, however, must be placed within the broader context of domestic blueprints of modernization largely external to the army and its control, but which nevertheless impinged upon its mission. Such projects, themselves envisaged as “modern” by their sponsors, included not only state-sponsored industrialization, but also such efforts as building a more coherent administrative structure for the Imperial polity. In turn, as perceptive Russian statesmen and thinkers had long ago learned, both artifacts of technology and programs of modernization imported from abroad were themselves underpinned by exogenous cultural values and historical experiences.

Further, if modernization was a reciprocal and dynamic process of negotiation, the terms of this exchange were mediated fundamentally by the culture of the tsarist officer community. By culture I mean that body of values, assumptions, and practices that structured how officers perceived, defined, and articulated their role, function, and identity. This set of values derived from their collective experience served as the starting point for any interpretation and appraisal of programs of modernization. Thus, one must pay particular attention to the unique features of this military community. The officer corps was an organization with specific functions and internally generated conventions and norms, but institutionally sensitive as well to international standards of military performance. At the same time, it was a part of the tsarist state apparatus whose relations with other parts of this apparatus,

from the high sphere of the central ministries to provincial police officials, were varied, complex, and often contentious. Lastly, it was a community conditioned by broader links to prevailing social structures and cultural patterns in the tsarist empire.

This work specifically addresses the development of military aviation in the period 1905–1914 as a case study through which to explore the dynamic relationship between technology, the imperatives of modernization, and the culture of the Russian Imperial officer corps. The airplane was emblematic of the dilemma of modernization, for both army and state, in the last years of the Russian empire. It at once presented both a serious challenge and a tantalizing opportunity; it sharply exposed the limitations of Russia's economic, technological, and infrastructural development while simultaneously offering a means to rapidly overcome them; it provided a means to demonstrate and assert Russia's achievements, pride, and place while also giving rise to fears of the penalties of backwardness with the stakes of modernization now risen, literally, dramatically higher. The airplane thus offered a potent symbol around which definitions and visions of what modernization should mean for Russia could be contested. The advent of the airplane also called into being the need for a requisite cadre of trained personnel: the flyers and mechanics, the priests and acolytes, who would serve this new idol of technology. This task involved the creation and assimilation within the army of an almost entirely new profession of arms and a unique society of officers. In this way the airplane was the harbinger not just of a new age of technology, but of the birth of a culture of aviation within the Russian army, one that would reach its zenith of expression under the Soviet regime.

Given this symbolic power of the airplane, traditional indictments of the Russian military community take on heightened form in regard to aviation. They entail not only judgments of military performance in the air, but a broader critique of the inability of the tsarist army and state to confront the military, economic, and political challenges besetting the Empire. In contrast, the successes of aviation amongst various European powers of the period, particularly during World War I, offer a vivid comparative standard. This critical stance has again been exaggerated by the aftermath of the Russian Revolution. Instead of the broader, evolutionary continuity with which to judge the development of aviation in the United States and Western Europe, there is the seemingly stark contrast between the lame, feeble efforts of tsarist aviation and the large devotion of priorities, resources, and propaganda that surrounded aviation under the Soviet regime. In this view, the material backwardness and cultural failings of the tsarist military were graphically exposed, even before the debacle in war, by its response to the airplane. Soviet

literature is united in painting a picture in which the tsarist officials and senior army officers failed to adequately adapt to the airplane and cultivate its “necessary” development. Even works which praise the efforts of early Russian fliers, inventors, and aviation enterprises stress the difficulties they labored under.¹ The best example of such work is the exhaustive study by P. Duz’, *Istoriia vozdukhoplavaniia i aviatsii v Rossii* (*History of Aeronautics and Aviation in Russia*).² The composite picture, which remains largely the same in post-Soviet accounts, thus presents a sharp dichotomy. In the front lines of Russia’s encounter with the airplane was a budding, vibrant culture of aviation professionalism, uniting a small group of “progressive” army officers with civilian inventors and enthusiasts. However, their efforts were ultimately stifled by the short-sightedness and inertia which generally prevailed both at the levels of command and the line, within the officer corps as a whole and even the aviation service itself. In turn, the general economic, industrial, and infrastructural backwardness fostered by the tsarist political and social order presented fundamental obstacles beyond the control of the officers of the air services. Hence, a visionary aviation culture was unable to flower fully until after the October Revolution and the Bolshevik commitment to modernity, symbolized by the regime’s idolization of the airplane.

While somewhat more sympathetic, the small amount of Western work on the topic also treats Imperial military aviation largely as a preparatory footnote to the impressive aviation tradition of the Soviet armed forces. Such works generally focus upon the large-scale features of economic backwardness—a small industrial base, poor infrastructure, financial constraints—which hindered the development of Imperial military aviation and especially a domestic aviation industry.³ These works also make mention of the energetic and fruitful activity of a handful of committed and innovative enthusiasts. Yet, like Soviet scholars, they depict such visionaries as largely alone and generally unheeded, like straws against the wind, amongst the general milieu of backwardness and obscurantism that characterized the late Imperial army.

However, in his history of Soviet aviation Robert Kilmarx does emphasize the debt owed by the Red Air Force to its tsarist predecessor—a debt that the Soviets were only too happy to minimize—in terms of inherited experience, techniques, methods, and theoretical knowledge.⁴ Recent work on Russian Imperial aviation likewise presents a more nuanced picture. Scott W. Palmer’s exploration of the prominent place and role of aeronautics and aviation in Russian popular culture throughout the tsarist and Soviet periods stands out.⁵ He evocatively demonstrates that a tradition of aviation possessed long-cultivated and deep-seated roots in the Russian national memory. In a related piece he argues that in the years before World War I the airplane acted

as a powerful symbol for the Russian public of the ability to overcome Russia's chronic "cultural stagnation and historical backwardness." Aviation thus offered Russians an example of strength and "a means of redefining their national identity," an identity pointedly contrasted to the obsolescent political and social order promoted by the Tsarist regime.⁶ Likewise, Von Hardesty also chronicles the numerous achievements of Russian military and civilian aviators, scientists, inventors, and aeroclub enthusiasts in the years before and during World War I. He points to the renowned aircraft designer Igor Sikorsky, for example, as a glowing symbol of a Russian talents and initiative in this sphere.⁷ Noting that it was long official Soviet policy to downplay the accomplishments of Imperial aviation, Hardesty instead argues that "one is struck with the continuity between the tsarist and communist periods" in terms of perceived challenges and responses to aviation, claiming that both periods evinced a common style "which could be described as distinctively 'Russian.'"⁸ He thus stresses the numerous similarities—in philosophies, methods, and cadres—shared by Imperial and Soviet aviation policies.

While offering invaluable insights regarding the general development of Imperial aviation, however, neither Hardesty nor Palmer focus in depth upon strictly military aviation, which dwarfed civil aviation in this period. In turn, Palmer's analysis draws heavily upon the traditional model of a moribund autocracy pitted against an increasingly assertive public over the imperatives of modernization and the future course of the nation. Existing scholarship on Russian Imperial aviation thus offers both strident indictments of the army's failure to master the challenges of modernization, as well as indications that such judgments deserve a reappraisal.

This study provides such a reappraisal through a comprehensive and in-depth examination of the tsarist aviation service before the Great War. Limiting this study to the years before the outbreak of conflict has several advantages in terms of analytical and comparative context. It helps avoid the dangers of the aforementioned posture of judgment and the resulting tendency to view Russian defeat both in the air and on the ground as somehow preordained. It further allows a more fruitful application of an appropriate comparative framework, one that distinguishes between the pre-war period and the experience of the war itself, when the stalemate of the trenches dramatically increased the attention and resources devoted to aviation and the resulting pace of its development. Before the exploits of the Great War's aces crystallized the popular image of early aerial combat, aviation was a novel and dodgy business. All of the European militaries grappled with the challenge of the airplane with varying levels of commitment and success; it was a highly competitive process of trial and often deadly error, where relevant knowledge

and useful experience were scarce, standards and technologies evolved rapidly, and past accomplishments were no guarantee of future success. France was widely recognized as the leading military aviation power before 1914, yet it was the Germans who arguably did the most to revolutionize both aircraft technology and tactics under the pressure of war. In 1914 the Russian air force could boast second place among European armies in terms of number of aircraft, but the demands of war quickly exposed such claims as hollow.

Related, within this comparative context, taking August 1914 as an endpoint allows analysis of the personnel and culture of the pre-war tsarist air force on its own terms, before the demands of the conflict fundamentally transformed both its size and character. Although it would grow rapidly, the aviation service was quite small before 1914. Due to the resulting paucity of positions of command, it was primarily populated by exactly those junior officers—lieutenants, captains, staff-captains—that often prove so elusive in studies of the officer corps. Yet while the aviation service attracted officer volunteers from all the various branches of the army, it was not considered an elite division. Sociologically and culturally, it was therefore comprised of a broad, uniquely representative cross section of tsarist officers. As a result, the community of military aviators would draw upon established models and conceptions of duty, service, and identity while simultaneously elaborating new values, roles, and paradigms of service distinct to aviation.

Thus, if from the vantage point of 1917 the Russian Imperial air force had itself been significantly transformed, and the army and the regime it served overwhelmed, by the demands of the Great War, it was in the pre-war years that the foundation of this service was established. This involved organizational infrastructure, training and staffing policies, a core cadre of experienced aviators and command personnel, and, equally importantly, a nascent institutional memory and culture. It was this foundation, limited though it was, that would support the dramatic expansion of the wartime air service and also serve as a bridge to the Bolshevik era. While numerous officers joined the emigration, Imperial aviation veterans, soldiers and officers alike, alongside various pre-war inventors, technicians, and scientists, played an important part in creating and nurturing the Red Air Force.

A set of questions therefore remains. Were the demands of the airplane and its aviators indeed irreconcilable with a prevailing culture of backwardness, both within the army and the regime at large? Were there elements of tsarist military culture that served to promote aviation, as testified to by the existence of officer aviation enthusiasts themselves? Was aviation in some ways destabilizing, exacerbating cleavages and fractures within the officer community, or was it perhaps unifying and integrative? To what extent

did this culture of aviation service draw upon broader attitudes and influences, both from Imperial society and culture and from the international experience of aviation? Lastly, did the perceptions of modernization and alleged dissidence of tsarist aviators match the Bolshevik vision of modernity later ascribed to their efforts, both by the Soviet regime and by those former tsarist officers who served in the Red air forces?

Fortunately, there is a large and diverse literature to draw upon in addressing such questions. In addition to the specific studies of the tsarist air forces cited above, there is also the rich body of work on the air forces of Europe, in particular the English, French, and German. Further, an increasing amount of work has been devoted to exploring tsarist officer culture and modernization in the Imperial army.⁹ An admirable model in this regard is provided by John Keep's excellent social history of tsarist soldiers and officers of the pre-1874 army.¹⁰ In a broader comparative frame, there are the socio-cultural histories of various European officer corps, among them excellent works by Demeter, Deak, and others.¹¹ Along with Keep's work, they offer a model for considering the sociological, cultural, and political experience of officers in sum. Lastly, the use of overtly sociological and cultural approaches to studying issues of warfare has become increasingly popular in past years; John Shy notes that the value of such approaches lies in their broad, inclusive, inter-disciplinary potential.¹²

In the realm of theory, the multi-faceted experiences of the officers of the Imperial aviation service can be examined, for example, through the prism of militarism. Although he is most well-known for articulating an ideal model of civil-military relations through his archetype of a "professional" soldier, Alfred Vagts also discussed another variant of militarism.¹³ This entails attitudes and frames of thought that interfere not with politics and civil structures, but that place institutional values, interests, or inertia before what he defines as the chief task of any army: scientifically analyzing and preparing for the next war. In his words, militarism "presents a vast array of customs, interests, prestige, actions and thought associated with armies and wars and yet transcending true military purposes... militarism displays the qualities of caste and cult, authority and belief."¹⁴ While at first glance this definition may seem to draw upon the value judgments of the historiography cited above, it can be used to explore in greater detail how exactly Russian officers conceptualized issues of duty, service, and competence.

William Fuller's treatment of military professionalism in the late Imperial army provides a complementary analytical frame. Instead of empirical results, Fuller emphasizes the creation and maintenance of a self-conscious professional identity, cultivated through rigorous selection, training, and

standards of performance and behavior. Within this context he stresses five criteria, again to be measured less by “success” than by commitment to these ideals: a specialized set of knowledge and skills; the insistence on the upgrading of standards of performance; a strong sense of group identity; a recognition of the special interests of the military; and autonomy over criteria of admission and promotion.¹⁵ While employing these criteria, Fuller avoids the extremes of a rigid and reductionist application of them to the understanding of professionalism on a daily level. Like modernization itself, professionalism was more a matter of process, a state of mind, than some objective and static result.

Lastly, the words and actions of the aviation officers themselves—as represented in official reports and correspondence, orders and regulations, contemporary interviews and publications, press accounts and memoirs—provide the most compelling sources for illustrating their attitudes, values, aspirations, and self-perceptions. They allow one to examine the linkages of culture and modernization within the tsarist aviation community through various lenses: broader valuations of technology; particular hopes and fears inspired by the airplane; specific projects drafted to develop military aviation; institutional adaptations made in response to the airplane; relationships and conflicts amongst senior officers of the aviation institutions; policies of recruitment and training for the cadre of military pilots; practices to cultivate a requisite service ethos for such officers; ceremonies of both celebration and mourning. Through these projects, debates, practices, and rituals, such officers addressed not only the priorities and potential of military aviation, but such issues as the proper role of the army, its ideal nature and composition, its relationship to the society and culture around it, and conceptions of empire, state, and nation as they related to notions of service and duty.

By exploring the collective experience of this community of officer aviators, a community at the forefront of the tsarist army’s ongoing confrontation with the imperatives of military modernization, this study will thus provide a fuller, richer picture of the Russian air force in its formative years before the Great War. Examining this experience within the milieu of the tsarist officer community as a whole, as well as within the broader comparative context of the pan-European development of military aviation, demonstrates how this community articulated a uniquely Russian experience of military modernization. Lastly, by illustrating the connections between this community and prevailing social, economic, political, and cultural currents and dynamics outside the realm of the army itself, this study can provide a window into the broader meanings, possibilities, and limits of modernization and modernity in the last decade of the Russian Empire.