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## 14. Soviet Pilots in the Spanish Civil War

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### I. The State of the Republic's Air Forces

By a wide margin, pilots were the most numerous and prominent of all Soviet specialists who served in Spain. The need for so large a contingent at the start of Operation X—in all, 772 pilots who flew some 648 Soviet aircraft—was the result of critical Republican weaknesses in aviation. The government had managed to retain two-thirds of the approximately 550 military, naval, and civilian aircraft in Spain at the time of the rebel uprising.  $\underline{1}$  Most of these machines, however, were obsolete, dating from the 1920s or earlier, and too slow to compete with the new equipment available in 1936. Howson claims that, of all the aircraft held by the Republic, only the government's three recently acquired Douglas DC-2s could be considered modern aircraft.  $\underline{2}$  Louis Fischer dismissed the hardware possessed by the army's air wing as "old coffins," while the Republic's regular air force was little better equipped. 3

Making matters considerably worse was the Republic's paucity of experienced pilots. The Azaña government's military reforms—one of the most divisive programs of the Second Republic—had drastically slashed defense spending. Though aimed chiefly at the top-heavy officer corps, by the summer of 1936 the government's actions had led to severe deficiencies in all service branches.  $_{\underline{4}}$  One result of the cutbacks was a shortage of fuel, which effectively kept young pilots on the ground instead of amassing flying hours. According to Howson, the most experienced pilots in the Spanish air forces were those wealthy enough to join flying clubs, and nearly all of these defected to the rebels.

The outmoded nature of the Republic's air forces and its shortage of skilled pilots were both known to Moscow from an early date, and were cause for considerable concern.  $_{\underline{5}}$  In a September 1936 telegram to the Defense Commissariat, Gorev reported that the Republic possessed just eighty-five military aircraft, most of which were in a state of disrepair.  $_{\underline{6}}$  By mid-October, some reports claimed that the Republic had just two fighters and a single bomber in service.  $_7$ 

### **II. The First Soviet Pilots Arrive**

To meet the pressing needs of the Republican air force, and in response to direct requests from the Madrid government, Soviet planes were en route to Spain by early October 1936, just weeks after Stalin received the blueprint for Operation X. The first shipment of ten SB fast bombers arrived aboard the *Staryi Bolshevik* on 15 October, with two identical shipments following within a week. On 28 October, twenty-five I-15 biplane fighters arrived, and three days later, another fifteen. In the first week of November, thirty-one of the newer mono-wing I-16 fighters reached the Republican zone. 8

It was immediately apparent to Section X planners that a large contingent of Soviet pilots would be necessary to man these aircraft.  $_{\underline{9}}$  Republican pilots, in addition to lacking general experience, had no training whatsoever with the new Soviet machines, and no pilot training program had yet been organized. Given the rebels' command of the skies over Madrid in the early autumn of 1936, and the steady movement northward of Franco's land forces, there was little debate over the deployment of Soviet pilots in defense of the central front and the Spanish capital. According to documents in the Russian military archive, the first Soviet airmen bound for Spain traveled overland from Moscow in early October 1936 and arrived in

the Republican zone on 13 October 1936. The pilots came ahead of the main aircraft deliveries from the Soviet Union and were thus idle for nearly two weeks.  $_{10}$ 

### III. Initial Soviet sorties in the Spanish war

In the last week of October, Soviet pilots were finally able to operate their own equipment in the skies over Spain. The first thirty SB (*Katiuska*) fast bombers formed a bomber group that was initially composed of three squadrons of ten SBs each, <u>11</u> which first saw action on 28 October 1936. <u>12</u> The initial sorties included a raid on the rebel airport at Talavera (Toledo). <u>13</u> The Soviet aviation attaché reported that the operation raised morale among those in the Soviet ranks, who until that time had engaged only in attack planning. <u>14</u> Without mentioning the participation of Soviet pilots, *Pravda* reported several days later that the Republican air force had completed its "most successful bombing raid of the entire war." Restraining its typical hyperbole, the paper described the operation thus:

A government squadron of aircraft, after an extensive period of inactivity, appeared above the rebel airfield at Talavera (160 km from Madrid) and dropped bombs which destroyed 15 rebel aircraft. The operation proceeded successfully, despite heavy anti-aircraft fire. The Talavera airfield was completely destroyed. 15

In the next several weeks, two fighter groups were created from recently delivered I-15s and I-16s. <u>16</u> Each consisted of three ten-plane squadrons, one less than the normal Soviet *eskadril'ia* (squadron), which in this era normally included thirty-one machines. <u>17</u> The I-15 group entered action on 4 November, <u>18</u> the I-16s on 9 November. <u>19</u> Some weeks later, the arrival of Soviet dual-use R-Zs, or Natashas, allowed for the formation of an attack group, also composed of three ten-plane squadrons. <u>20</u> By the end of November 1936, nearly 300 Soviet pilots were in action on the side of the Republic. <u>21</u>

The most decisive action involving Soviet pilots came in the first weeks after their arrival in Spain. In the last days of October 1936, the rebel air force had free rein in the air and could bomb Madrid at low altitude and with complete impunity. By the second week of November, the skies belonged to Soviet pilots and the rebel offensive was halted on the outskirts of Madrid. Whereas Nationalist pilots had routinely flown over central Madrid at altitudes of 500-700 meters—the ideal altitude for targeted bombing—after the Soviets gained control of the skies, rebel planes were forced to operate at the much less effective altitude of 800-2000 meters. 22 But Russian aerial prowess won the Republic more than a tactical dividend; equally decisive was the concomitant boost in civilian morale, a development remarked upon by many contemporary observers, and conveyed to Moscow by Soviet representatives in the field. 23 Shortly after the Central front debut of Soviet aircraft, General Consul Antonov-Ovseenko lobbied the Kremlin for increased deliveries to the Aragon front: "To stir and captivate [the troops] will be possible only through some potent means of inspiration. Best of all would be to support their attack with modern aircraft." 24

Throughout the late fall of 1936 and into early 1937, the balance of air power weighed heavily in the Republic's favor. The arrival of hundreds of skilled Soviet airmen and the voluminous deliveries of the most modern fighters, bombers, and attack planes led to the creation of a formidable Republican air force, which in this stage of the war had no demonstrable weaknesses. The Soviet-dominated fleet soon eclipsed the Italian and German forces flying at the behest of the Nationalists. The Red Army pilots' most remarkable performance in this period came in the Guadalajara campaign of March 1937, when 125 Soviet-piloted aircraft vanquished an entire Italian corps of some 50,000 men. This rout, which cost the Italians several thousand killed, wounded, and captured, and the destruction—mostly from the air—of as many as 1000 vehicles and 25 artillery pieces,

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ranks as one of air power's most impressive demonstrations prior to World War II. 26

The superiority of the Soviet pilots in the first months of their service can be demonstrated by comparing aerial combat results and total losses. A report sent to the Defense Commissariat in December 1936 by Operation X chief Uritskii claimed that:

[T]he general calculation of losses on our side and the side of the rebels for the period 28 October to 7 December 1936 reveals the following: The rebels have lost 47 planes shot down in the air (35 fighters and 12 bombers) and 91 on airfields, for a total of 138 aircraft. Our side has lost 17 aircraft in the air to the enemy (3 SBs, 6 I-15s, 4 I-16s, 4 SSSs) and 12 on airfields, for a total loss of 29 aircraft. Our personnel losses include 11 dead [in aerial combat], 4 killed in air disasters, 2 dead of injuries, 9 missing in action and 5 injured.

According to Uritskii, whose figures for this period cannot be confirmed elsewhere, Soviet airmen were performing better than four times as effectively as their opponents during the first six weeks of their activity. This was an admirable showing, but it would not be sustained.

During the war, Soviet pilots were engaged in a wide variety of assignments. The tasks of the SB and R-Z groups included bombing the supply lines of the rebel offensive, destroying military equipment and standing forces of the enemy, raiding airfields, and attacking communications centers in the rear. A Red Army air force report published in 1937 provided a breakdown of Soviet bomber targets during the first year of the war: 45 percent of Soviet bombing raids targeted enemy troops, 24 percent rebel airfields, 22 percent railroad and industrial objects, 8 percent naval targets or ports, and 1 percent of the flights were reconnaissance missions. <sub>27</sub>

The first and primary responsibility of fighter pilots was to neutralize the enemy's air power, a goal, which required repeated attacks on airfields and frequent aerial combat. Fighters also played a role in dispersing land forces, escorting bomber and attack squadrons, and protecting Republican column movements. Fighters also performed reconnaissance missions. <sub>28</sub>

As in other facets of the Soviet involvement in Spain, the Soviet air force saw its combat experience in Spain as vitally important to its on-going military aviation program. While this should not imply that the tactical objectives of the Spanish conflict were of secondary interest to Soviet aviation advisors, an obvious priority was placed on the testing of equipment and techniques and on detailed after-action reporting of the results. All aviators were expected to write detailed reports of their experiences. In the first year of the war, these were sent directly and immediately to Moscow with little bureaucratic delay on the ground in Spain. Only in autumn 1937 did a commissar assigned to work with the pilots suggest that the high volume of dispatches might well compromise military secrecy. <sub>29</sub>

As a result of the experience gained in the civil war, all of the Soviet aircraft that flew in Spain underwent significant updates in the years just prior to World War II. Moreover, Soviet pilots carried out hitherto unattempted operations and crossed numerous critical frontiers in aircraft deployment. It was in Spain, for example, that the practice of nocturnal combat and bombing raids was first successfully carried out by the Soviets. <u>30</u> Prior to the Spanish Civil War, procedures for nocturnal military operations were virtually unknown to the Red Army air force. Ribalkin's research indicates that Soviet pilots preparing for service in Spain received no instruction in night flying; indeed, the detailed handbooks given to pilots in Moscow make no mention of using aircraft at night. <u>31</u>

### **IV.** The Soviets Lose the Advantage

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By the end of the winter of 1937, the Republican air force had already begun to lose its advantage. The chief cause was the development of disparate supply patterns on either side. Despite suffering heavy losses, Hitler and Mussolini doggedly kept up their deliveries of aircraft and fresh pilots to the Nationalists. As newer and more efficient aircraft were developed in Germany and Italy, these were sent on to Franco's side. Conversely, the Soviet leadership began to decrease aircraft deliveries just as the German and Italian dictators were settling into a routine of consistent replenishment. For the Republic, this led to a marked decrease in the supply of aircraft compared to the first months of Soviet involvement [see Tables IV-3 and IV-4]. The number of planes delivered to Spain averaged over sixty per month in the period from October-December 1936. By early the summer of 1937, aircraft deliveries were down a third, to just forty per month, and they would continue to decrease for the remainder of the war.

Moreover, aside from the gradual increase in the number of I-16 fighters over the slower I-15s, the quality of Soviet aircraft deployed on the Republican side improved little over the course of the war, and probably reached its peak in early 1937. Among Soviet bombers, only the SB-2 was considered highly effective against Nationalist air power. Yet of the seventy bombers deployed by the Republic in September 1937, only twenty-eight, or less than half, were SBs. The balance of the fleet consisted mostly of the older, antiquated R-5, R-Z, and SSS multi-use biplanes—hardly proper bombers—the last of which Shtern had roundly condemned as wholly ineffective against the enemy's air force. 32

Moscow's inability to resupply and upgrade its aviation contributions to the Republic may be contrasted with German and Italian deliveries to the rebels. In the first months of Soviet military intervention, the Nationalist air forces had been badly overmatched by the advanced Russian machines. The Fiat CR-32 and Heinkel 51 performed poorly against the I-15 and I-16, and the Junkers 52 bomber could not match the SB-2. By early 1937, however, the appearance of newer models in the Nationalist fleet was rapidly turning the tide. The most important of these were the Heinkel 111 bomber and the Messerschmitt 109 fighter. The HE-111, a fast, all-metal bomber capable of carrying 3000 pounds of bombs, had first flown in Spanish skies in February 1937 and achieved lasting notoriety as the lead plane in the attack on Guernica in April of that year. The ME-109 was added to the Condor Legion the following summer. The new fighter's top speed of over 560 kilometers per hour, its high rate of climb, bulletproof fuel tank, and range of up to 640 kilometers meant that it could easily best any Soviet plane in the Loyalist arsenal. <sub>33</sub>

The lack of prompt deliveries to replace lost aircraft led to considerable dismay among Soviet advisors. As early as November 1936, Antonov-Ovseenko was reporting to Moscow that on the Aragonese front "there is not even one modern airplane." He continued:

Units have sat in damp trenches for more than two months. To stir and captivate them will be possible only through some potent means of inspiration. Best of all would be to support their attack with modern aircraft.  $_{34}$ 

Indeed, even more than their tactical value in battle, the Soviet planes had from their first appearance greatly buoyed the spirit of the Republic's defenders. Their gradual disappearance had the converse effect, contributing in no small part to increasing demoralization in the Loyalist camp. The air force advisor Iakushin was distressed to witness the shortage crisis unfold before him, and he understood that neither a tactical redeployment of the available machines nor heroic efforts by his men could offset their disadvantage:

Although the initiative in aerial combat continued to remain in the hands of Republican pilots, and even though the fascist air force suffered greater losses than that of the Republic, the standing number of aircraft and flight personnel continuously gravitated in favor of the fascists. <sub>35</sub>

By 1 July 1937, the Republic's air power had been reduced by nearly 40 percent from its zenith of six months before. Of the 366 planes sent since late October, the Republic possessed a working fleet of only 222 aircraft. Ninety-nine planes had been destroyed, and forty-five required major repairs. <u>36</u> The same month, Shtern sent an urgent message to the Defense Commissariat in which the chief Soviet military advisor reflected on the loss of the Republic's superiority in the air, and made entreaties to Moscow for increased shipments:

It is precisely the enemy's air force ... that appears to be the main factor behind their success during this period. The bomber aircraft of the whites [rebels] played a major role in the North and they halted the Republican's Brunete offensive. The aviation question has been transformed into the Republic's greatest problem of the war. If the army is to seize the offensive and win, sufficient fighter and bombing aircraft will be needed, as well as a sharp increase in all types of weapons and an improvement in soldierly skills. At a minimum [the Republic] requires 110-120 SB's and 200-250 fighters, in addition to what they now have.  $\frac{37}{2}$ 

Despite Shtern's requests, and similar efforts from the Spanish government, the Soviets would make no further deliveries in the volume recommended by Moscow's chief military advisor. By the end of the war, total German and Italian aircraft deliveries to the Nationalists were nearly twice the number of Soviet shipments to the Republic: 1253 to 648 [see Table IV-1]. Moreover, as already observed in Chapter Thirteen, attempts to substitute local aircraft construction or assembly for diminishing Soviet supplies of fighters and bombers were unsuccessful, with the completed aircraft often lacking either engines, weapons, or both.

In the view of many eyewitness accounts and official after-action reports, what Soviet pilots lacked in fresh aircraft was partially compensated for by a remarkable level of tenacity and stamina. Said one advisor, "Enormous moral and physical endurance are expected from the comrades, but I did not encounter any complaints about fatigue."  $_{38}$  According to internal Soviet publications, even in the hot summer months Soviet pilots often worked twelve- to fifteen-hour days, and five to seven hours per day of flying time was not unusual.  $_{39}$  Making the same point with different calculations, the air force advisor Yakushin reported that it was not unusual for Soviet flyers to complete six to eight sorties per day, three or four of which would likely involve combat.  $_{40}$ 

### V. Problems of Training and Performance

One of the most widespread problems among Soviet airmen was the lack of adequate military training. According to the Russian historian Novikov, after two years of preparation in Red Army flying schools, some Soviet pilots had logged only between 30-40 hours of flight time. In the same period of training, many Italian and German military pilots already had 300-400 hours of experience. <u>41</u> By comparison, in the U.S. Navy at that time, squadron flyers had to log 30 hours per month to qualify for pay, and 250 hours were required of a trainee before wings could be awarded. <u>42</u> In some critical areas, Soviet pilots were remarkably under-prepared; few had ever flown at high altitudes, conducted aerial battles while carrying full loads, or taken off and landed on uneven airfields. <u>43</u> Indeed, it appears that Soviet airmen were often not as advanced as their equipment. The SB bomber had instruments in the cockpit for navigating at night, but few pilots knew how to use them. <u>44</u>

Iurii Ribalkin's meticulous research reveals that the overall skill level of Soviet airmen was very inconsistent. Not a few were poorly prepared prior to their arrival in Spain, and consequently they received their baptism of fire in the air. Under such circumstances, all

lessons had to be learned in combat. The lack of proper experience led to frequent accidents and other mishaps. On numerous occasions, Soviet pilots mistakenly landed their planes on rebel airfields.  $_{45}$  Crashes on take-off and landing were also common. In December 1936 alone, fourteen Soviet aircraft were lost in accidents due to pilot error—six were completely destroyed, and eight required extensive repairs.  $_{46}$  The varied preparation of Soviet pilots is evident in data from the RGVA on comparative losses of aircraft from the Republican and Nationalist sides for the period from 25 October 1936 to 1 July 1938 [see Table V-4]. On the one hand, the Soviets registered less than half the total losses of the rebels, and performed very favorably in aerial battles: 163 losses for the Republic to 572 for the rebels. But the most striking difference is in the number of aircraft lost through accidents and landings in enemy territory: 147 by the Republic compared to just 13 by the rebels.

Statistics over the entire period from 28 October 1936 to 15 March 1938 reveal a similar pattern. During that period the Republic lost 331 aircraft (as with Table V-4, this includes only aircraft of Soviet origin). Of these, 138 planes, or 41 percent of the total, were lost as a result of accidents ; 133, or 40 percent, were lost in aerial combat; 36, or 11 percent, were bombed at airports; 16, or 5 percent, were knocked out by anti-aircraft fire; and 8, or 3 percent, defected to the enemy. A report sent to the Defense Commissariat indicates that, of those 138 accidental losses, 88.5 percent were due to pilot error, while only 11.5 percent were blamed on equipment failure. Equally striking is that 59 of the 138 accidents occurred while pilots were attempting to land.  $\underline{47}$  Data on Republican aviation losses from the beginning of Soviet participation in October 1936 to 15 December 1938 demonstrates that accidents accounted for over one-third of all aviation losses [see Table V-5]. Moreover, this was the case not only for the I-15 and I-16 fighters, but for the bombers and attack planes as well.

### Table V-4

# Soviet Reports of Comparative Losses of Nationalist and Republican Aircraft, 25 October 1936-1 July 1938, according to lists in RGVA/ Ribalkin $_{\rm 48}$

Cause of loss	Nationalist	Republican
Aerial combat	572	163
Destroyed at airports	147	39
Anti-aircraft fire	52	25
Accidents, disasters, or forced landings in enemy territory	13	147
Landings in enemy territory	1	14
Total Aircraft Losses	785	388

### Table V-5

# Losses of Republican Aviation, 25 October 1936-15 December 1938, according to lists in RGVA $_{\rm 49}$

Cause of Loss/								
Aircraft type	SB	I-15	I-16	SSS	R-Z	Grumman	Other	Total
Aerial combat	35	91	112	4	21	3	0	266
Destroyed at airports	3	27	11	1	1	1	0	44
Anti-aircraft fire	16	9	1	5	10	1	0	42
Accidents	14	87	62	11	26	0	1	201
Landings in enemy territory	6	6	1	1	0	0	0	14

Total

	Iabi					
Total Numbers of Soviet Pilots in the Spanish Air force, 1936-38, according to RGVA/Ribalkin $_{\underline{50}}$						
	Active Soviet Pilots					
Aircraft type/Year	1936	1937	1938	Total		
SB	84	86	93	263		
I-15	63	41	_	104		
I-16	77	125	88	290		
R-Zet	84	—	—	84		
Spanish aircraft	3	24	2	29		
Total	311	276	183	770		

Table V-6

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# Table V-7

# Soviet Pilot Losses in Spain 1936-39, according to RGVA/Ribalkin $_{51}$

	Fatalities				<b>Missing in Action</b>				Total
Aircraft	1936	1937	1938	Total	1936	1937	1938	Tota	Losses
SB	9	6	4	19	—	4	3	7	26
I-15	3	3	—	6	1	2	—	3	9
I-16	6	19	20	45	—	8	4	12	57
R-Z	2	4	_	6	_	_	—	—	6
Rep. Planes	—	1	—	1	_	—	—	-	1
Total	20	33	24	77	1	14	7	22	99

Compared to many of the foreign pilots, who were well compensated for their service to the Republic, the salaries of Soviet airmen were quite modest, if not niggardly. A Soviet pilot holding the rank of junior commander had a fixed monthly salary of 3,000 pesetas (approximately \$150); a lieutenant, 3,500 (\$175); a captain or commander of a unit, 4,000 (\$200); a major or squadron commander, 5,000 (\$250); and a colonel or head of a flying group, 6,000 (\$300).  $_{52}$  Some Soviets made even less. A report from one V. S. Goriainov indicated that his monthly salary was just 1,600 pesetas (\$80), while French pilots regularly received 15,000 pesetas (\$750), regardless of the number of sorties.  $_{53}$  British pilots who flew for the Republic signed generous contracts that guaranteed them a minimum salary of 200 pounds monthly, as well as bonuses for enemy kills and insurance in the event of death.  $_{54}$  Soviet flyers, by contrast, signed no contracts and received no bonuses. It should be noted that the relative impoverishment of Soviet pilots was a feature common to nearly all of the Soviet personnel in Spain. Indeed, in September 1937, a confidential report to the Defense Commissariat recommended an immediate monetary subsidy to all those serving in the Iberian theater.  $_{55}$ 

By the end of the war, 770 Soviet pilots had flown for the Republic. The number of Soviet airmen active at any time varied; as with the delivery of Soviet weaponry, their service was not distributed evenly over the course of the war. A majority of the 770 Soviet pilots flew in 1936-37, and a large portion of the total number were already active just weeks after the first sorties by Soviet pilots in October 1936. On 20 November 1936, for example, 298 Soviet pilots were flying for the Republic, or nearly 40 percent of the total number who would eventually serve. <sub>56</sub> By the end of 1936, 311 pilots had served in Spain; in 1937,

### **VI. From Soviet to Spanish Pilots**

We have seen that the direct use of Soviet pilots in the Spanish war was necessary due to the condition in which the Loyalist air force found itself in the first months of the conflict. This arrangement was unsatisfactory to both the Kremlin and the Loyalist government, and consequently measures were taken early on to replace Soviet pilots with newly trained Spanish flyers. Whereas the instruction of Republican tank crews could be undertaken with little difficulty in the Loyalist zone itself, preparation for combat flight required a more elaborate infrastructure and the availability of specialized equipment, and thus the decision was made to send future Republican pilots to the USSR for proper training.

The apprenticeship of Spanish pilots in the Soviet Union began in early 1937, a development that marked an intensification of the Soviet engagement in Spain. While the Soviets had long offered military and political training to select foreign Communists, the exposure of large numbers of non-Communist foreigners to otherwise secret Soviet military installations and advanced Soviet weapons and techniques demonstrates the Soviet leadership's serious commitment to the Republican cause. The initial decision to allow Spaniards to train in the Soviet Union probably came in mid-December, since at that time Stalin approved specialized training for the International Brigades in the USSR as well. <sub>57</sub>

The training of the Spaniards was carried out in much the same manner as the IB training, and common instructors and locations were used. While at least one Russian scholar has attempted to frame the Soviet training program in terms of the greatest magnanimity, it is not true that the Comintern paid the costs of the pilot program.  $_{58}$  Rather, all expenses incurred in this complex operation were added to the total Republican war debt; the cost for a short period of training in the fall of 1937 alone came to over \$1 million.  $_{59}$ 

By special decree, in January 1937 the Politburo authorized the construction near Kirovabad (today, Giyanzha, Azerbaijan) of the 20th Military School for Pilots, to be used exclusively for the training of Republican flyers. The training program at the 20th School was a vast improvement over any comparable training available in Spain. Its construction cost alone was 3,462,600 rubles, all of it added to the Loyalist bill.  $_{60}$  The site included an airfield, classrooms, and accommodations for 200 students.  $_{61}$  The school had at its disposal eightyfour aircraft, including the older PO-2, UTE-1, UTE-4, and PT-6 models as well as the planes currently employed in Spain, the I-15 and I-16 fighters and SB bomber.  $_{62}$  On site were also some fifty assorted automobiles, trucks, and tractors. The school's staff numbered in the hundreds and was composed of officers, maintenance workers, and support personnel.  $_{63}$  The head of aviation training was E. G. Shakht, already decorated a Hero of the Soviet Union for service in the skies over Madrid. Throughout the war, Soviet pilots who had flown for the Republic were brought to the 20th School to provide special instruction on the conditions in Spain.

The first 193 Spaniards began their instruction on 1 February 1937. <u>64</u> The course of study lasted five months and included concentrations in theoretical aerodynamics, piloting skills, aerial combat, and assault techniques. <u>65</u> The first sorties were conducted in older aircraft, with the more modern and expensive models being reserved for advanced stages of training. This precaution was not without justification: accidents at the 20th School would eventually claim the lives of ten Soviet instructors and nine Spanish trainees. <u>66</u> In all, the school produced five graduating classes of approximately one hundred pilots each, for a total of over five hundred trained Spanish pilots. The graduates of the first four classes, totaling 413 men, would gradually replace the Soviet pilots flying for the Republic. <u>67</u> The 185 members of the fifth and final graduating class completed their training in May 1939, too late to serve in the Spanish war. Of these, eighty-four were allowed to emigrate to Mexico, while another 101 elected to stay in the Soviet Union. Of the latter group, forty-four would

eventually be engaged by the NKVD for service in World War II.  $_{68}$ 

In addition to the specially constructed 20th School, Spanish aviation trainees were soon incorporated into existing Soviet military academies. As before, these decisions required first Voroshilov's recommendation and then Politburo approval. On 15 June 1937, 100 Spaniards began a four-month course of instruction at the 9th Military School in Rogalsk, an advanced training center for pilots and gunners. <u>69</u> By the end of 1937, a total of 180 Spanish pilots had received training at the 9th School. <u>70</u> In 1938, Voroshilov also authorized elite training for seven of the Republic's best pilots, among them Lieutenant Romeo Negrín, the son of the prime minister. These Spaniards were sent to the Red Army aviation academy at Lipetsk. <u>71</u> Between the three pilot schools, the Soviets trained nearly 700 Spanish pilots, of whom more than 500 eventually flew for the Republic. <sub>72</sub>

The Soviets, of course, were nothing if not eager self-promoters, and opportunities for propaganda were never passed up. No exception was made in the case of the scores of Spaniards who traveled to the Soviet Union to receive pilot training. Some Republican trainees were recruited to appear at pro-Loyalist meetings and demonstrations in Soviet cities. On those occasions when recruits were tutored in rudimentary Russian, and attempted to speak directly to the Soviet audiences, the results were mixed. A fragment of an unreleased film, preserved in both the Moscow film archive and the Filmoteca Española, conveys the atmosphere of these events.  $_{73}$  In a compact hall, Spanish militiamen ascend to a stage and take turns reading prepared statements in Russian to an audience of Soviet youths. The declarations attest to the friendship between the two peoples, the inevitability of Republican victory, and the demise of fascism, before closing with salutations to Stalin. The Russian language skills of the Loyalist soldiers are uneven. One Spaniard tosses off his appearance with verve and aplomb, but the next cannot finish his brief speech, despite multiple abortive starts. It soon becomes obvious why this farcical audition was never edited into a newsreel, for it sums up all too honestly the improvised and ineffectual nature of the hastily-cemented union between the Republic and the USSR. More interesting, perhaps, is the audience reaction to these efforts. Regardless of the performance, the assembled Russians repeatedly leap to their feet and applaud enthusiastically. In contrast to other surviving footage of pro-Loyalist rallies in the Soviet Union, the listeners in this small gathering are keenly focused on the foreign visitors, palpably excited, and clearly tickled that young Republican soldiers have come to their local hall and taken the trouble to acquire a bit of Russian. 74

More often, however, Soviet authorities gave visiting Loyalist pilots whirlwind tours of the socialist state. Anticipating the attention they would receive upon their return from the USSR, Soviet officials took care to expose others to the most impressive aspects of the country. A 22 June 1937 letter from Voroshilov to Kaganovich indicated that nothing would be left to chance. The Defense Commissar writes that:

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The Spaniards who are attending a military instruction course near Leningrad are soon to be finished and will go to Moscow. It is advisable to show them, in addition to museums and theatres, the aviation factory no. 22, the Stalin automobile factory and the Volga-Moscow canal.  $_{75}$ 

This itinerary was identical to that of most Intourist propaganda tours of the same period.

These propaganda tours became a source of considerable ill will between the Republic and the Soviet regime. Upon learning that Spanish trainees were spending their time on extensive tours of greater Moscow, Spanish officials reacted angrily. In a mid-July letter to Voroshilov, Ambassador Pascua requested that the young pilots be transferred directly to Spain, where they were desperately needed to help resist Franco's northern offensive:

[A]llow me to turn your attention to the already excessively prolonged stay in

Moscow of the 3rd group of student pilots from Kirovabad. As you well know, they are awaited in Spain at this very moment with appreciable impatience on account of the great utility which they might render there. There is also the consideration that, during a prolonged stay in a large city like Moscow, with nothing useful or necessary to do, the discipline imbued in them during their work [at Kirovabad] will probably be diminished....  $_{76}$ 

Certainly, the Spaniards were wholly justified in demanding the return of the newly trained pilots for engagement in the war effort. On other occasions, the disputes that arose regarding the training of cadres in the USSR resulted from unreasonably high expectations on the part of the Republican government. For example, two groups of Spanish trainees (totaling 120 men) arrived in Moscow on 2 December 1937. Spanish officials had requested that the training of these cadres be of the shortest possible duration and that they be sent back to Spain immediately. Eleven days after their arrival, Pascua sent a frantic message to Voroshilov, demanding that the commissar explain why the students were still in the Soviet Union. T The Spanish authorities evidently believed that less than two weeks were required to produce pilots who could hold their own against the best Italian and German airmen.

Despite the preparation of Loyalist flyers beginning in early 1937, and the incorporation of the first graduates into the Republican air force by the summer of that year, a report to Voroshilov in October 1937 indicated that additional Soviet pilots were still required to offset the aerial superiority of the Nationalists.  $_{\underline{78}}$  Some months later, however, hundreds of trained Spaniards would be flying for the Republic, and Soviet airmen were completely phased out by the end of 1938.  $_{\underline{79}}$  In January 1938, Republican aviation chief Hidalgo de Cisneros reported to Voroshilov that the Loyalist air force would require few additional Soviet pilots.  $_{80}$ 

To some observers, however, the attempt to substitute Spanish pilots for Soviets merely accelerated the gradual weakening of the Republican air force. During the Brunete and Zaragoza operations, for example, the lack of a sufficient number of trained Republican pilots led to the grounding of dozens of I-16s;  $\underline{_{81}}$  their deployment might well have made a difference in the outcome of the engagements.

Data on Soviet aviator casualties reflects the changing fortunes of the Republican air force [see Table V-7]. By the end of 1936, the Republic commanded the skies and Soviet airmen outclassed their rivals in every area except, as we have seen, accidents. In 1936, although the largest number of Soviet pilots to see action in any single year were flying for the Republic—311 before the year's end—combined fatalities and pilots missing in action totaled only 21 men, or 6.7 percent. In 1937, fewer pilots (276) flew for the Republic, but the number of dead or missing rose to 47, or 17 percent. In 1938 the rate was nearly identical: only 183 Soviet pilots were engaged in the war, but 31 airmen were lost, or 16.9 percent. <sub>82</sub> In all, 99 Soviet pilots were killed or went missing in Spain. At 12.8 percent, fatalities among pilots were quite high, although, as we shall see, tankers fared even worse. In sum, the Soviet effort in the air adhered to the pattern experienced in other areas of the war. The arrival of Soviet equipment and personnel in the autumn of 1936 signaled a dramatic improvement in the Republic's military fortunes, and arguably saved the Loyalist cause from impending defeat. The early momentum was gradually undermined by aircraft wastage, the eventual arrival of superior German equipment, and the phasing out of Soviet airmen, three separate developments for which neither local aircraft production nor the appearance of enthusiastic and trained Loyalist pilots could compensate.

#### Notes:

Note 1: Gerald Howson, Arms for Spain: The Untold Story of the Spanish Civil War (New

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York: Murray, 1998), 30. Back.

Note 2: Ibid., 31-2. Back.

Note 3: Louis Fischer, Men and Politics (London: Cape, 1941), 354-55. Back.

**Note 4:** For detailed coverage of the military reforms, see Stanley G. Payne, *Spain's First Democracy: The Second Republic, 1931-1936* (Madison: University of Wisconsin Press, 1993), 90-5. <u>Back.</u>

Note 5: RGVA, f. 33987, op. 3, del. 852, l. 115. Back.

**Note 6:** Istoriia toroi mirovoi voiny (Moscow: Voennoe izdat. Ministerstva Oborony SSSR, 1974), vol. II: 26. <u>Back.</u>

**Note 7:** Dates and quantities of Soviet aircraft deliveries appear in Howson, *Arms for Spain*, 278-303. Bomber deliveries may be confirmed at RGVA, f. 33987, op. 3, del. 912, l. 84. <u>Back.</u>

**Note 8:** Dates and quantities of Soviet aircraft deliveries appear in Howson, *Arms for Spain*, 278-303. Bomber deliveries may be confirmed at RGVA, f. 33987, op. 3, del. 912, l. 84. <u>Back.</u>

**Note 9:** As we have seen above, the Republican government also requested Soviet pilots. <u>Back.</u>

Note 10: Report to Gorev from the Soviet aviation attaché B. F. Sveshnikov. RGVA, f. 33987, op. 3, del. 852, ll. 170-171. <u>Back.</u>

**Note 11:** *My internatsionalisty: Vospominaniia sovetskikh dobrovol'tsev-uchastnikov natsional'no-revoliutsionnoi voiny v Ispanii,* 2nd ed. (Moscow: Izdat. Politicheskoi Literatury, 1986), 31-2. <u>Back.</u>

**Note 12:** Ribalkin, "Voennaia pomoshch' Sovetskogo Soiuza ispanskomu narodu v natsional'no-revoliutsionnoi voine 1936-1939," Ph.D. diss. (Institute of Military History, Moscow, 1992), 126. The Central Committee approved Hero designation. In the case of Shakht and Kholzunov, this took place at the 31 Dec. 1936 Politburo session. <u>Back.</u>

**Note 13:** K. T. Demenchuk, "Internatsionalnaia eskadriliia," in *My internatsionalisty*, 20-23. <u>Back.</u>

Note 14: RGVA, f. 33987, op. 3, del. 852, ll. 170-171. Back.

Note 15: Pravda, 29 Oct. 1936. Back.

Note 16: My internatsionalisty, 30. Back.

**Note 17:** See Lennart Andersson, *Soviet Aircraft and Aviation, 1917-1941* (London: Naval Institute Press, 1994), 92. <u>Back.</u>

Note 18: V. A. Suyazin, "V boi vstupat istrebiteli," in My internatsionalisty, 48. Back.

**Note 19:** V. A. Tolmachaev, "Sovetskii Soiuz i Ispaniia: Opyt i uroki internatsional'noi pomoshchi (1936-1939)," Ph.D. diss. (Leningrad, 1991), 128. <u>Back.</u>

Note 20: My internatsionalisty, 31. Back.

Note 21: RGVA, f. 33987, op. 3, del. 870, l. 334. Back.

Note 22: V. A. Suiazin, "V boi vstupaiut istrebiteli," in My internatsionalisty, 52. Back.

Note 23: Though referring specifically to Soviet air power on the northern front, José

Fernández Sánchez astutely encapsulates the testimony of many Republicans who witnessed the arrival of the Soviet pilots: "Después supe que eso era precisamente lo que pretendían con aquella exhibición aérea: fortalecer el ánimo de la polación." See *Rusos en el Frente del Norte (1937)* (Gijón: Ateneo Obrero de Gijón, 1996), 7. <u>Back.</u>

**Note 24:** Reproduced in Mary Habeck and Ronald Radosh, *Spain Betrayed: The Soviet Union and the Spanish Civil War* (New Haven, CT: Yale University Press, 2001), 83. <u>Back.</u>

**Note 25:** See Richard Hallion, *Strike from the Sky: The History of Battlefield Air Attack, 1911-1945* (Washington: Smithsonian Institution Press, 1989), 97-102; cited in James S. Corum, "The Spanish Civil War: Lessons Learned and Not Learned by the Great Powers," *Journal of Military History* 62 (Apr. 1998): 325. The various disputed Italian losses are considered in Hugh G. Thomas, *The Spanish Civil War*, 3rd ed. rev. (New York: Simon and Schuster, 1986), 584-86. <u>Back.</u>

Note 26: RGVA, f. 33987, op. 3, del. 853, ll. 39-41. Back.

Note 27: Voina v Ispanii, vyp. 4. Deistviia bombadirovochnoi aviatsii, 16. Back.

**Note 28:** *Voina v Ispanii, vyp. 5. Boevye deistviia istrebitel'noi aviatsii (Iz opyta voin v Ispanii i Kitae)* (Moscow: Gos. voennei izdat., 1939), 5-6; cited in Ribalkin, "Voennaia pomoshch'," 127; Voina v Ispanii, Vyp. 5, 7. <u>Back.</u>

**Note 29:** This issue is discussed in a report sent to Voroshilov on 22 October 1937. RGVA, f. 33987, op. 3, del. 1033, ll. 174-183. Reproduced in Habeck and Radosh, *Spain Betrayed*, 292. <u>Back</u>.

**Note 30:** Soviet experiments with night flights are discussed in Tolmachaev, "Sovetskii Soiuz i Ispaniia," 145; N. E. Stepanov, "Nochnoi taran," in *My internatsionalisty*, 268-69; and M. Yakushin, "En la primera batalla contra el fascismo," in *Bajo la bandera de la España republicana* (Moscow: Progreso, 1967), 356-61. <u>Back.</u>

**Note 31:** Ribalkin, "Voennaia pomoshch'," 128. The Russian military historian's sources for these conclusions include documents that were not available to me: RGVA, f. 40442, op. 1, del. 1558, II. 1-52. <u>Back.</u>

**Note 32:** CC PCE. Tesis y manuscritos. 19/10, no. 17, 169. The original report is at RGVA, f. 33987, op. 3, del. 961, ll. 131-175. <u>Back.</u>

**Note 33:** For an interesting discussion of the employment of the HE-111 and ME-109 in Spain, see Thomas, *Spanish Civil War*, 606 and 658-59. <u>Back.</u>

**Note 34:** Secret Archive (8), Antonov-Ovseenko to NKID, [illeg] Nov. 1936. Reproduced in Habeck and Radosh, *Spain Betrayed*, 138. <u>Back.</u>

**Note 35:** M. Yakushin, "En la primera batalla contra el fascismo," in Bajo la bandera, 362. The Spanish translation of the original Russian reads as follows: "A pesar de que la iniciativa en los combates aéreos seguía en manos de los pilotos republicanos y la aviación fascista tenía más pérdidas que la republicana, la correlación en cuanto al número de aparatos y personal de vuelo cambiaba incesantemente a favor de los facciosos." <u>Back.</u>

Note 36: RGVA, f. 33987, op. 3, del. 1015, l. 115. Back.

**Note 37:** Shtern to Voroshilov, [unreadable] July 1937. RGVA, f. 33987, op. 3, del. 961, l. 147. <u>Back.</u>

Note 38: Intelligence report to Voroshilov, 22 Oct. 1937. RGVA, f. 33987, op. 3, del. 1033, ll. 174-183. Reproduced in Habeck and Radosh, *Spain Betrayed*, 482. <u>Back.</u>

**Note 39:** Voina v Ispanii, vyp. 5. Boevye deistviia istrebitel'noi aviatsii, 45, 73; cited in Ribalkin, *Operatsiia "X": Sovetskaia voennaia pomoshch' respublikanskoi Ispanii (1936-*

1939) (Moscow: "AIRO-XX", 2000), 68. Back.

**Note 40:** M. Yakushin, "En la primera batalla contra el fascismo," in *Bajo la bandera*, 353. <u>Back.</u>

**Note 41:** RGVA, f. 33988, op. 4, del. 2, l163; cited in M.V. Novikov, *SSSR, Komintern i grazhdanskaia voina v Ispanii 1936-1939* (Iaroslav: Iaroslavskii gos. pedagogicheskii universitet, 1995), vol. II: 65. <u>Back.</u>

Note 42: See Gerald Howson, Arms for Spain, 32. Back.

**Note 43:** RGVA, f. 33988, op. 4, del. 2, l. 163; cited in Novikov, *SSSR, Komintern i grazhdanskaia,* vol. II, 65. <u>Back.</u>

Note 44: Ibid. Back.

Note 45: Ibid. Back.

Note 46: RGVA, f. 33987, op. 3, del. 853, ll. 40, 106. Back.

Note 47: RGVA, f. 33987, op. 3, del. 1057, ll. 10-11. Back.

**Note 48:** RGVA, f. 37988, op. 4, del. 314, ll. 4-5; cited in Ribalkin, *Operatsiia "X,"* 68. Republican aircraft in this calculation includes only those of Soviet origin. The Red Army did not produce data on the total Republican aircraft losses. <u>Back.</u>

**Note 49:** RGVA, f. 33987, op. 3, del. 1143, l. 38. The material is cited in Tolmachaev, "Sovetskii Soiuz i Ispaniia," 232. <u>Back.</u>

**Note 50:** RGVA, op. 33987, op. 3, del. 1149, l. 305; cited in Ribalkin, *Operatsiia "X,"* 69. <u>Back.</u>

**Note 51:** RGVA, f. 33987, op. 3, del. 1149, l. 305; cited in Ribalkin, *Operatsiia "X,"* 69. <u>Back.</u>

Note 52: RGVA, f. 33987, op. 3, del. 835, l. 285. Back.

**Note 53:** Rossiiskii Gosudarstvennyi arkhiv ekonomiki (RGAE), f. 8328, op. 1, del. 1002, l. 129. <u>Back.</u>

Note 54: Daily Telegraph, 13 Jan. 1937. Back.

**Note 55:** The writer's comments on the matter—and original emphasis—bear quotation in detail: "The question of wages now requires adjustment owing to the fact that life has become more expensive by 100-140%. I think a subsidy is <u>essential</u>, especially for the group of lieutenants who are big men here, and receive 800 pesetas each, owing to which newly arriving comrades cannot properly fit themselves out (a proper suit costs 300-400 pesetas). Individual comrades are already in debt." RGVA, f. 33987, op. 3, del. 961, II. 207-220. Reproduced in Habeck and Radosh, *Spain Betrayed*, 475. <u>Back</u>.

Note 56: RGVA, f. 33987, op. 3, del. 960, l. 141. Back.

Note 57: RGVA, f. 33987, op. 3, del. 853, ll. 54-55. Back.

Note 58: TsAMO, f. 132, op. 2642, del. 77, l. 47; cited in Novikov, SSSR, Komintern i grazhdanskaia vol. II, 63. <u>Back.</u>

**Note 59:** Itemized bill dated 2 Nov. 1937. AHN-Madrid. Diversos. M. Pascua, Leg. 12, exp. 2-9. The exact figure was \$1,156,356. <u>Back.</u>

Note 60: RGVA, f. 33987, op. 3, del. 1010, l. 60. Back.

Note 61: RGVA, f. 25873, op. 1, del. 123, l. 16. Back.

Note 62: Pravda, 2 May 1989. Back.

Note 63: GVA, f. 25873, op. 1, del. 123, l. 46. Back.

Note 64: RGVA, f. 25873, op. 1, del. 1010, l. 63. Back.

Note 65: RGVA, f. 33987, op. 3, del. 1010, ll. 60-61. Back.

Note 66: Pravda, 2 May 1989. Back.

(Moscow: voennoe izdat., 1986). Back.

**Note 67:** V. Aleksandrovskaia and V. Maiskii, "Krepnet druzhba: Kirovabad-Ispaniia," *Veteran voiny* 5 (1989): 16. Back.

**Note 68:** RGVA, f. 33987, op. 3, del. 1167, l. 326. The saga of Spanish fighters in the Red Army awaits its historian. One Russian-language study indicates that Spaniards employed by the NKVD were engaged against their Blue Division compatriots fighting with the Germans on the Eastern Front. See Serna Roko, *Ispantsy v Velikoi Otechestvennoi voine* 

Note 69: RGVA, f. 33987, op. 3, del. 1033, l. 63. Back.

**Note 70:** N. I. Fedorenko, "Deiatelnost' Kommunisticheskoi partii po podgotovke letnikh kadrov v gody dovsennyx piatiletok (1929-1941)," Ph.D. diss. (Moscow: MVPA, 1975), 33. Cited in Tolmachaev, "Sovetskii Soiuz i Ispaniia," 147. <u>Back.</u>

Note 71: RGVA, f. 33987, op. 3, del. 1149, l. 271. Back.

**Note 72:** Apart from pilots, Spanish commanders and military specialists also participated in training programs at other Red Army academies. In 1937, three graduating classes of 100 Spaniards each passed through a six-week general military training course at the Riyazansk infantry school. At several other bases, a total of 200 Spanish recruits took specialized, three-month courses: at the Sumsk artillery school, two classes of 30 men; at the Tambovsk academy, two classes of 20 engineers and 20 signalers; at the Gorki T-26 tank training school, two classes of 30 Spanish tankers. In all Soviet academies, the Spaniards formed special units and received their training separate from Soviet cadets. See TsAMO, f. 132, op. 2642, del. 77, l. 47. Cited

in Novikov, SSSR, Komintern i grazhdanskaia, vol. II, 62. Back.

**Note 73:** In their definitive survey of civil war film, Alfonso del Amo and Maria Luisa Ibañez refer to the fragment, which is four and a half minutes long, as "Españoles en Rusia." See *Catálogo General del cine de la guerra civil* (Madrid: Editorial de la Filmoteca Española, 1997), 429-30. Back.

**Note 74:** Compare "Españoles en Rusia," for example, to the completed short documentary "Na pomosch' Detiam i Zhenschinam Geroicheskoi Ispanii," also preserved in the Madrid and Moscow film archives, and discussed on 642 of the *Catálogo General del cine de la guerra civil.* In the latter film, Soviet officials, not Spanish militiamen, present canned, uninspired speeches to a visibly listless, bored audience. <u>Back.</u>

**Note 75:** Rossiiskii Gosudarstvennyi arkhiv ekonomiki (RGAE), f. 8328, op. 1, del. 1003, l. 23. <u>Back.</u>

**Note 76:** Pascua to Voroshilov, 18 Jul. 1937. AHN-Madrid. Diversos. M. Pascua, Leg. 2. Exp. 8. <u>Back.</u>

Note 77: Pascua to Voroshilov, 13 Dec. 1937. AHN-Madrid. Diversos. M. Pascua, Leg. 2. Exp. 8. <u>Back.</u>

Note 78: Intelligence report to Voroshilov, 22 Oct. 1937. RGVA, f. 33987, op. 3, del, 1033,

II. 174-183. Reproduced in Habeck and Radosh, Spain Betrayed, 480. Back.

Note 79: Tolmachaev, "Sovetskii Soiuz i Ispaniia," 160. Back.

Note 80: RGVA, f. 33987, op. 3, del. 1142, l. 4. Back.

**Note 81:** CC PCE, Tesis et Manuscritos, 19/10, no. 17,170. The original report appears in RGVA, f. 33987, op. 3, del. 961, ll. 131-175. <u>Back.</u>

**Note 82:** These percentages must be approached with one qualification: in 1936 and 1938 pilots flew for less than the entire year. In 1936, Soviet pilots were active for only two months, while in 1938 many pilots were withdrawn before the end of the year, in November or earlier. <u>Back.</u>

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