



A FLYDIVER

PUBLICATION

STEALTH TRIKE



Arthur Thompson

Copyright 2008 by Arthur Thompson and FlyDiver, llc

All rights reserved. No reproduction or modification of any kind may be made without expressed written permission from the author.

Table of Contents

| | |
|-----------------------|---|
| Chapter 1 | 4 |
| Silent Approach | 4 |

Chapter 1

Silent Approach

Lieutenant Petr Slavek reached forward and slapped the engine kill switches. The noisy whine of his two stroke engine immediately ceased and all that could be heard was the rush of the wind in his face. With the engine off, Petr's aircraft immediately began a plunge toward the ground, now nothing more than a glider with exactly one chance to make a safe landing.

Without being aware he had done so, Petr filled his lungs, clenched his jaw muscles and gripped the bar that controlled his aircraft a little harder as he watched the ground beginning to rush up toward him at an alarming rate. Airspeed was now extremely critical, too much and he would overshoot the very short landing area ahead, too little and he risked stalling the wing and falling out of the sky.

Petr had spent many hours practicing engine off landings to make certain he could effectively use the one chance he had to make the landing work. In a glider, you get it right the first time or you turn your flying machine into scrap for the salvage yard.

Using a small tree topped hill as cover, Petr glanced at his airspeed indicator to be certain he had enough airspeed to continue flying and pointed the nose of his flying machine down into a grassy area just behind a row of tall trees that would hopefully hide him from the guards at their post across the border in Poland, just on the other side of the hill.

Petr could see that the grassy area he must land in was as short as he had been told. It was barely long enough to land and get his aircraft stopped before it hit a stand of trees along a small ravine at the end of the grassy area. He knew he could restart his engine and abort the landing but that would mean aborting the mission. He also knew it would be better to damage the aircraft and finish the rest of the mission. Nevertheless, Petr thought to himself that if he did get down in one piece, getting back out would be a different problem altogether.

The critical decision height was only seconds away. Petr must either begin his landing flair to slow down and land or start the engine. The sensation of the ground rushing up to meet him increased rapidly the closer he got to the touchdown spot. Now or never he said to himself as he began pushing the control bar forward.

Following a rather bumpy flight through a long and narrow mountain valley, Petr's tiny aircraft had flown clear of the influence of the mountains into near perfect flying conditions. The early morning air had become cool and calm. Petr could take his hands completely off the controls and his weight shift trike would continue to fly, entirely unassisted by its pilot, as though no control was needed at all. Simply by leaning over to one side or the other Petr could make his wing start a shallow turn. He had smiled remembering how much fun it was to fly in these conditions.

Petr's flight that morning had taken him from the Czech air force hangar on the airfield near Sumperk, through the mountain valleys west of Sumperk until the border with Poland was close at hand. It was a difficult and dangerous night flight following the valleys that ran between

mountains in which it was certain he would encounter the up and down drafts that make mountain flying so hazardous.

It was a night flight in an area that had few lights on the ground for reference and none whatsoever on the mountains that rose steeply above both sides of Petr's route of flight. Without visual reference to the ground and the horizon, a pilot must rely on instruments that tell him where the horizon and the ground are supposed to be and where his aircraft is relative to obstacles, like mountains, that he might fly into.

A weight shift trike is a very small aircraft and its basic design has the airframe and engine hanging from a hang glider style wing in such a manner as to allow the wing to move somewhat independently of the hanging airframe. Because it is the wing that flies, all of the flight instruments must be calibrated with reference to the wing. An airframe that merely hangs from and is not rigidly attached to its wing does not lend itself to conventional instruments that allow a fixed wing pilot to fly without seeing the ground and the horizon.

Light weight aircraft are easily tossed about by wind and air currents, none of which can be seen by the pilot. So far that morning Petr had encountered the expected up and down drafts nearly always found in mountain flying. Each bump and jolt was a surprise that usually resulted in one wing tip being tossed up while the opposite wing tip began a sickening dive toward the ground. It was perhaps fortunate that the navigational lights turned off, the wing tips could not be seen any better than the mountains.

At each bump Petr had to mentally remind himself to relax his hands on the control bar. This was truly white knuckle flying but the harder he hung on, the more he tended to over control the wing. Petr well knew that a wing with enough airspeed to fly will do most of the flying work by itself. The pilot's job is to ensure that attitude, altitude and direction of flight are maintained. Fighting the wing just made a tired pilot.

Petr also knew the bumps in the air would be just as much a surprise in daylight since one cannot see moving air currents unless clouds or movable objects like trees are present to show the result of moving air currents. He knew that his job was to monitor the aircraft instruments that would show his altitude, direction of flight and attitude in the air above the valley relative to the horizon. The few lights from the occasional village or lone house on the ground were very much welcomed and especially valuable clues in the constant effort to remain on his intended flight path.

Lt. Slavek's mission was of a military nature and he had been ordered to keep his navigational lights off. The tiny glow from the flight and engine instruments were the only visible sign that Petr was there as they guided him carefully through the twisting path between mountain peaks.

Petr had kept his primary attention carefully focused on the wonderful new aircraft guidance system that showed him not only the course he must take but also the changes in altitude he must make in order to avoid the changing terrain that rose up on either side of his aircraft.

Secondarily, he scanned the engine instruments along with an altimeter and airspeed indicator.

The altimeter and airspeed indicator could be used to reinforce what the GPS display was telling him.

To protect themselves from the new Russian military buildup, the Czech government had recently signed an agreement with the United States for the installation of a “Star Wars” missile defense system. A major part of the missile defense system included a new GPS based navigational system. The Czech government had only recently obtained the new navigation systems from the United States as part of the agreement which included several of the former Soviet client states. Petr was well aware that the system was still very much classified information that neither his government nor the United States wanted to see in the wrong hand.

Using a combination of GPS and lasers that could not be seen in normal light, the new navigation system could paint a picture on its display that showed the features of the terrain and the aircraft’s location in very precise detail on the six by six inch display mounted above the instrument panel on the top of the fiberglass nose pod that covered the front of his airframe. It was a little like flying inside a tunnel but with a little practice, Petr had concluded that it was far superior to any other instrument flying he had ever done. Most importantly, it would work effectively in his weight shift trike.

As Petr neared the end of his flight he began a mental review of the mission briefing that he had received just after midnight. The briefing was conducted by his commanding officer, Colonel Slavek Novak. Colonel Novak was the flight commander for the Czech Army Air Force regional

group based at the airfield in Brno. The colonel was in his early fifties with close cropped graying hair and the straight backed posture that identified him as a career military officer.

Petr respected his commander for the consistency the colonel applied to his command. Petr well knew that one didn't have to always agree with the boss but if you always knew where you stood, it was very much easier to accomplish the mission. Petr had worked for an emotional "screamer" in his previous assignment and was grateful for the transfer to Colonel Novak's command.

Colonel Novak, had laid out the mission parameters in the precise manner that Czechs are known for. "At 0200 you will fly west, undetected and with your lights off, until you intersect highway 11, here," the Colonel said, pointing to the large map taped to the wall in the tiny briefing room.

"From there follow the highway until it turns into highway 43" Colonel Novak continued. "At Cervena Voda you must depart the highway so that the town of Kraliky is bypassed. Plan your altitude so that when you are within 3 kilometers of the Polish border you can shut down your engine and glide to a landing silently.

"I will have to have a least 300 meters altitude plus a safety margin to glide that far and land," Lieutenant Slavek observed. "Five hundred meters should be more than sufficient," he ended.

“Your landing will be at this spot,” Colonel Novak responded as he nodded in the affirmative and pointed to the map on the table between them. “You will glide to a landing here just behind this row of trees,” he continued.

Petr studied the map as his briefing continued.

“Your mission is to infiltrate the border post at Lichkov. We have reason to believe that a Russian general officer is going to lead an infiltration into our country.” Colonel Novak said as he looked directly at Petr trying to gauge his reaction. Petr had a surprised look on his face that the colonel expected. Petr’s expression quickly hardened into a look of fierce determination.

Good, thought the colonel, I have his attention.

Since the collapse of the Soviet Union and the departure of the Russians from the former Czechoslovakia, life in the now Czech Republic had been freed from all the fear caused by the communist oppressors. Czech was now well on the road to becoming a prosperous country with a democratic government. Although little had been heard from the Russians in many years, all Czechs had in inborn fear that someday they might return.

Petr clearly remembered growing up in one of the still standing, featureless gray cement apartment buildings the communists had built. Though poorly built and crumbling, the new Czech government had made a valiant attempt to maintain the buildings while they jump started a capitalist economy that was now beginning to thrive and slowly replace all of the run down

relics left by the Soviets. That Russians were planning an infiltration of Czech territory sent a cold tremor down Petr's spine.

Colonel Novak, assured that he had Petr's complete attention, continued the briefing. "You will have a very high gain microphone and directional receiving dish so you will not have to get too close but you must be within 500 meters in order to hear clearly what is being said," the colonel instructed Petr. "Be certain you turn on the built in tape recorder so that we will have a record of their conversations."

"One final instruction, my friend," Colonel Novak said in a slow and cautious voice. "Under no circumstances can you be captured. I would prefer that you not be seen at all but if you are, the Russians must not know who you are or where you came from."

Colonel Novak handed Petr a small device encased in plastic. "This is an emergency transmitter. Pull it apart like this to activate it if you are spotted," he instructed as he demonstrated the device to Petr. "Our commando troops will be nearby and will contain the situation but they will also have orders to eliminate everyone they find." "Everyone will mean you, if you are captured! There won't be time to figure out who is who."

"Na dobry," murmured Petr. "Not good, but I understand."

“That is all then,” the colonel said. “Report to your aircraft and ready it and yourself. You will take off at precisely 0400. Petr immediately came to attention, saluted his colonel and replied,

“Yes Colonel.”