Air War in the Falklands

Grand miscalculations, unknown odds, miserable weather, vast distances—and unlikely adversaries

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A Royal Air Force Avro Vulcan strategic bomber. (Sgt. David S. Nolan, US Air Force)

IN DECEMBER 1981, AN ARGENTINE SCRAP METAL salvage team landed on the island of South Georgia, a dependency of the British Falkland Islands, and ran up the Argentine flag. HMS Endurance immediately brought 21 Royal Marines from East Falkland to eject the intruders, with harumphing all around. No one thought this was the beginning of a war.

As Argentina urged the United Nations to review the case of the Malvinas, the name by which the Falklands are known in much of Latin America, Operation Rosario, a plan to invade and capture the islands, took form in the Argentine capital, Buenos Aires. Argentina's claim, centuries old but fanned by nationalism since the Juan Peron era, would be vindicated; half the world away, the British would do nothing. Or so went the thinking in Argentina.

Neither of the combatants was prepared for a winter war in the far south Atlantic, and the sudden, unexpected conflict, though brief, was both improvised and lethal: In just two months of hostilities, 891 men died, 132 aircraft were lost, and 11 ships were sunk. Fought hundreds of miles from the nearest mainland, the war was decided in the air, and 20 years later, the pilots still remember every violent minute.

Argentina invaded the Falklands' capital, Port Stanley, early on Friday, April 2. Before noon, the small detachment of Royal Marines had surrendered, and the Argentine colors fluttered over Government House. But before night had fallen on occupied Port Stanley, Operation Corporate, the British counterthrust, was under way.

The carriers Hermes and Invincible, originally scheduled to be sold, had been alerted on April 1, when the invasion appeared imminent. A day later, two squadrons of Sea Harriers met the carriers at Portsmouth—Lieutenant Commander Andrew Auld's 800 Squadron was assigned to Hermes, while Lieutenant Commander Nigel "Sharkey" Ward's 801 Squadron was assigned to Invincible.

With the passing of the last conventional carrier, HMS Ark Royal, the Royal Navy had adopted a version of the Royal Air Force's Harrier GR.3 vertical-takeoff attack fighter. Hermes and Invincible, originally built with traditional decks, were modified by the addition of a bulbous ramp at the bow. By accelerating along the deck and up the ramp, the Harriers seemed to jump into the air, and they could carry a greater load than when they took off straight up.

The Sea Harrier differed from the RAF's GR.3 in having extensive corrosion-proofing, a cockpit that was raised to provide the pilot with a better view, and a multi-mode radar called Blue Fox, which could search for targets in the air or on the sea. The airplane was unusual, its capability a mystery. One squadron might report excellent results with the radar and navigation systems, while another found them unreliable. A comparative newborn, the aircraft had never been in a real fight in the demanding maritime environment.

But British forces train with a rigor exemplified by high scores against superior aircraft in competitions. "We had fought the Sea Harrier against every airplane in the western world," says Tim Gedge, then a lieutenant commander. And the British had adopted the new U.S.-built AIM-9L Sidewinder heat-seeking air-to-air missile, with a new wide-angle sensor to improve off-boresight engagement.

"We decided to take eight aircraft but had only six pilots," Gedge recalls. "We did a troll of the RAF. We needed people who'd actually flown a Harrier but also had single-seat fighter experience....The RAF identified two. We phoned them on Friday in Germany, in a bar" and gave them the good news: "They were going to war with the Royal Navy."

The staff at Whitehall were not as confident as the pilots, Gedge says. "I was told by [Ministry of Defence] people that attrition of Sea Harriers would be so great that all of them would be lost in the first few days of the war. I kept this to myself." Gedge was on the beach as the task force sailed out of Portsmouth on April 5. That afternoon, his mood was brightened by orders to build a new squadron—809—with aircraft coming from the factory.

The RAF sent six GR.3s, and later four more. Air Chief of Staff Sir Peter Squire, then commanding 1 (Fighter) Squadron at Wittering, says it was assumed that the Royal Navy would lose one Sea Harrier a day. "We were going down as attrition replacements," he adds.

As the 809 Squadron and the GR.3s were fitted for combat, the search for a transporter for them began. There was only Atlantic Conveyor, a commercial container ship. "Ship came in on a Friday," Gedge says. "We walked around. We cut up all the ventilator things, measured the flight deck. She had a 92-foot beam. We left the foremast in place, 32 feet high, to use as a guide in hover and vertical descent."

The carrier task force rendezvoused at Ascension Island with a second armada from the Mediterranean, and on April 18 the full battle group, commanded by Admiral John "Sandy" Woodward, turned toward the south Atlantic. The group's destination, some 4,000 miles away, was an exclusionary zone 400 miles in diameter, centered on the Falklands. They would not arrive until April 30.

Most of the Argentine navy was already at sea, and on April 29, the aircraft carrier 25th de Mayo took up station north of the exclusionary zone, while the old World War II-era cruiser General Belgrano patrolled to the southwest. In Buenos Aires, air force commanders brooded over how to hang onto what the navy had "recovered." They had more than ten times the combat aircraft of the British battle group, including 16 Dassault Mirage III supersonic interceptors. The navy had the formidable combination of the Dassault Super Etendard and the Exocet sea-skimming anti-ship missile, though they had only a handful of the latter, which were then embargoed by France.

But this force wasn't quite what it seemed. "Most of our planes took part in Vietnam," says Lt. Colonel Carlos Rinke, at the time a 26-year-old lieutenant in Grupo 5 de Caza, referring to the Skyhawks. The Israeli-built Mirage V, also called the Dagger, was fast and well maintained but had no aerial refueling system, electronic countermeasures, or inertial navigation system. Argentina's pilots were long on ability and courage, but years of isolation had deprived them of priceless experience. They had practiced combat only against themselves, and the air force had never trained to fight at sea.

The first shots of the air war were fired on April 25, when a British Wessex helicopter near South Georgia put two 250-pound depth charges next to the submarine Santa Fe near Grytviken. More British helicopters joined the fight, and soon the flaming sub beached itself. The Argentine garrison surrendered to British commandos, and the Union Jack was restored.

At the RAF Waddington base, five Avro Vulcan B.2s, all on their way to retirement, were instead readied for war. Having abandoned air-to-air refueling a decade earlier, the RAF had to reacquire lost skills. "We were told 'You're going up on Monday to learn air-to-air refueling,' " recalls Martin Withers, then a flight lieutenant. "The probe's on the end of the nose, below you. When you start taking fuel on, it's like being in a car wash."

But there was not much time to rehearse. At mid-morning on May 1 at Wideawake, the U.S. air base on Ascension Island, 11 Victor tankers took off a minute apart, followed by a pair of fully armed Vulcans. The first of the flights code-named Black Buck, this deployment was also the first time Vulcans had been used in anger in 25 years of service and, at the time, the longest bombing mission ever attempted. Mechanical failures caused a Vulcan and a Victor to

drop out, leaving only Withers' Vulcan and 10 tankers. As the flock pushed across the sea, Victors topped off Victors and turned back, while the remaining tankers fueled the sole Vulcan. An hour from the islands, the last tanker filled the Vulcan and banked for home, flying on fumes.

It was an odd mission for a Vulcan. "We were a big lurching thing to go in and drop conventional bombs on a sophisticated enemy," Withers says. The Vulcan released 21 bombs on a line that angled southwesterly across the Port Stanley runway; the first bomb cratered the runway almost in the center; the rest missed. Even today, the perception of a lot of effort producing little result gets a rise out of Wing Commander Neil McDougall, the senior Vulcan pilot at the time. "Martin's bomb!" he sniffs. "He could only have hit it with one," given the spacing between bombs. "If you tried to bomb straight up the runway and you're just 50 feet aside, you miss." Sure enough, a second Black Buck raid two days later stitched 21 craters parallel to the runway. Withers' single hit dug a diabolical hole, producing a great upheaval of asphalt crust.

Invincible began rotating her Sea Harriers through combat air patrol (CAP) west of the fleet that same day. By mid-morning, the radar officer was reporting echoes closing fast. Lieutenant Paul Barton, flying CAP, painted six Mirages at about 35,000 feet, but the six declined to come down to fight, and the Sea Harriers would not be lured up to where the French fighter was most dangerous. As it would so often in this war, low fuel ended the dance.
The two sides skirmished throughout the day until Barton scored with a Sidewinder that shattered everything aft of one Mirage's cockpit. Wingman Steven Thomas fired at and crippled a second Mirage just as it entered cloud. The pilot limped toward Port Stanley, where Argentine guns shot him down—the first of many incidents of friendly fire.

Meanwhile, three Daggers managed to damage some British vessels with cannon fire but narrowly missed with their bombs. Two more Daggers with Israeli Shafrir heat-seekers engaged Flight Lieutenant Tony Penfold and Lieutenant Martin Hale, but the Argentine pilots fired at extreme range. One missile followed Hale into cloud before losing its lock. Moments later, the offending Dagger was nailed by Penfold and the other turned for home. Six attacking Canberra bombers were scattered, but not before one of them was dropped by a Sidewinder.
Thus ended day one, with both sides wiser. Britain had learned that little of its high-technology arsenal worked quite as the brochures had described. Shipboard anti-aircraft radar, designed for fights at sea, lost small, fast targets against the terrain, and, like all computerized entities, the units sometimes sulked. The Sea Harrier's radar also lost aircraft that were flying over land.

But so far, the Sea Harrier and AIM-9L Sidewinder had easily defeated the Mirages and Daggers sent against them. Part of that was attributable to the Argentine pilots' lack of combat experience. As they improved—and if they pressed their attacks—they would start getting hits, and by June the world would be bereft of Sea Harriers. As the British CAPs thinned, the carriers would become more exposed. But positioning the carriers out of range would sacrifice

air superiority. The farther the carriers were from the islands, the less time the Sea Harriers had to fight.

The generals in Buenos Aires also had much to ponder. Surface-to-air missiles—the Sea Dart and Sea Wolf—had been their main worry, but the Sea Harrier and Sidewinder had cost them four aircraft. The French Magic and Israeli Shafrir missiles, launched at great range, had proved useless. And then there was the Vulcan.

Like the Doolittle raid on Japan, the Vulcan strike had an effect. A nation mad enough to fly 4,000 miles to hole a runway might send Vulcans to bomb Buenos Aires. And the 4,100-foot runway at Port Stanley, already marginal for high-performance jets, was now closed to them.

The next morning, about 200 miles northwest of the British fleet, 25th de Mayo prepared a strike, but with no wind, her catapult couldn't loft a fully laden Skyhawk. General Belgrano was eastbound 30 miles south of the combat zone, trailed by the British nuclear submarine Conqueror. Sensing an Argentine pincer movement, the Royal Navy ordered the sub to strike. It hit the cruiser with two torpedoes, and two hours later Belgrano went down, along with 321 souls and all hope that war could be averted. With her escort, 25th de Mayo headed to port, never to fight again.

Now all of Argentina's aircraft would have to fight from the mainland. The Super Etendards and Skyhawks could be refueled by tankers, but the Daggers couldn't; they would have barely enough fuel for the trip. The Mirage IIIs were pulled back to protect Buenos Aires from Vulcan raids—and, perhaps, to save them from the Sea Harriers.

Two days later, on May 4, an Argentine Lockheed P2V Neptune detected British warships about 85 miles south of Port Stanley. Near noon, the old airplane climbed high enough to sweep the fleet one last time, and passed its position to a pair of Super Etendards, each of which had an Exocet. The pilots were less than a year out of training at Landivisian, in Brittany. "When they left France," recalls Ramón Josa, the French navy pilot who trained them, "they were 50 hours old on the Super, and not in the least ready for a South Atlantic war. But when they ran the Exocet attacks, they had something like 110 hours with the Super and they were ready."

For 200 miles, the two Supers flew only 50 feet above the waves, then, near the target, popped up to about 120 feet and briefly switched on their Agave radar units. They saw a white block: the destroyer HMS Sheffield. With a range of less than 20 miles at this height, the radar evidently missed the carriers. Josa says a larger radar echo is not necessarily a larger ship; the echo is smaller when the radar sees a ship head-on and larger when in profile. "After the pop-up and looking to my radar image," he says, "I have to choose between two alternatives: launching the missile at the first target I see, or...get the carrier into missile range." The latter entails flying another 20 miles, over the missile-armed frigates—in other words, "I die before launching," says Josa. By staying low, the Argentine pilots gambled nearly half their Exocet arsenal on a small destroyer.

he Agave radar signal alerted the British ships, but it was too late. The Argentine pilots fired from about 12 miles out, then banked sharply for home. One Exocet fell into the sea. The other hit Sheffield amidships. The warhead failed to explode, but the impact and fire inflicted grave damage. Twenty men were killed, and five days later the ship was allowed to sink. While the destroyer burned, Hermes launched three Sea Harriers against a landing strip at Goose Green, where some Argentine aircraft were parked. On the first pass, the Sea Harrier flown by Lieutenant Nick Taylor was brought down by anti-aircraft fire, and he was killed.

Stunned by these losses, the battle group moved farther offshore and contemplated the day's result. The precious Sea Harriers, it was decided, would concentrate on achieving air supremacy. The RAF GR.3s, fitted with a ground attack computer and navigation system, could take up the high-risk attack role when they arrived.

But the run of bad luck hadn't ended. Two days later, two Sea Harriers on CAP were vectored to investigate a low, fast-moving echo. John Eyton-Jones and Al Curtis, among the most experienced British pilots, descended through fog almost to sea level and were never heard from again. Suddenly, the battle group was down to just 17 Sea Harriers.

The Argentine air force also had its omens. On May 9, a flight of two Skyhawks from Grupo 4 flew into a mountain shrouded in cloud. Three days later, Grupo 5 lost three Skyhawks to Sea Wolf hits. Another foursome ran in moments later, and this time the Sea Wolf system balked. A Skyhawk dropped two bombs, which skipped over a frigate and into the sea. One Skyhawk managed to hit HMS Glasgow, but the bomb passed through the vessel and exploded in the sea. The pilot had little chance to celebrate; his compatriots at Goose Green shot him down, and he died in the crash.

Seeing so much smoke, the Argentines believed they were scoring heavily. In fact, their British-made thousand-pounders weren't detonating. Fused to provide enough time for the airplane to get clear before they exploded, the bombs had no time to arm at the low altitudes where the Argentines were flying. To arm and explode, they needed to be dropped from a greater height—at least 200 feet—and at that altitude, the aircraft became vulnerable to missiles. BBC World Service would reveal that little secret, but not until late May.

Her decks, hold, and containers crammed with aircraft and materiel, Atlantic Conveyor arrived in the area on May 18. Sea Harriers and GR.3s had boarded the ship a fortnight earlier at Ascension Island, landing on the narrow deck and parking in an improvised revetment of containers. All of the aircraft except one deck-alert jet had been cocooned against the sea. Now crews unwrapped them and flew the GR.3s to Hermes, and the Sea Harriers to the 800 and 801 Squadrons on both carriers.

Aboard Hermes, the RAF detachment encountered little of the Fleet Air Arm's rivalry—none of the UFOs are real; it's the RAF that's an illusion kind of thing. "It wasn't just 'The Crabs arrived,'" quips Peter Squire, referring to the Royal Navy sobriquet for members of the RAF, the color of whose uniforms calls to mind a bluish anchor-chain lubricant called "crabfat."

"Many of the people knew one another, had a few beers together. That's not to say there weren't problems," Squire says.

For one thing, the RAF aircraft had gone down as replacements, with minimal ground crew. But the GR.3s were now considered reinforcements, and their maintenance fell to an already overextended naval staff. Further, on a rolling deck, the inertial navigation systems were impossible to set. "With no inertial nav, we had no dynamic means of aiming bombs," Squire explains. "We went back to the stopwatch and fixed crosshairs." Still, two days after joining Hermes, Squire's GR.3s were in the fight.

The action now shifted to a bay called San Carlos Water, where the British were assembling to land troops. Here, the surrounding terrain and narrow bay forced the Argentine aircraft through a gauntlet of warships stationed along predictable approaches. Like the British infantry's square, it was a defense that could be broken, but only by sustained and overwhelming force. The Argentines never cracked it wide open, but not for lack of trying. The press would call this desolate place Bomb Alley, and with good reason.

Weather blinded the Argentines to the May 21 landing, enabling the British to get a beachhead well established. But the sky suddenly cleared, revealing a tableau of ships unloading troops and materiel, with helicopters fluttering over them like moths. After some feints, what would prove a day-long wave of Argentine attacks broke over San Carlos Water. First came six Daggers, unseen and hurrying in from the north. They went after Antrim and managed one hit with a bomb that lodged deep in the ship but failed to explode.

"We took off with 7,500 liters of fuel," recalls Colonel Miguel Callejo, then an air force lieutenant. "Two bombs. Maximum weight was..pasado [exceeded]." They had radio navigation for 15 minutes, radar for another 15, then they were down to compass and clock.

Major General Horacio Mir Gonzalez, then a captain, says they flew from bases in the south. "Rio Grande, in Fireland [Tierra del Fuego]. We flew one hour, 45, 48 minutes until the islands, then operational descent and attack. If we were lucky enough to return, another 45 minutes. Two hours minimum. We returned with fuel reserves like..."—he makes a zero with a finger and thumb.

A pair of Pucará twin turboprops attacked but were turned back by Ardent. Sharkey Ward, on CAP, fell in behind Major Juan Tomba's airplane and peppered it with 30-mm Aden cannon fire. The first pass shot off an aileron, the second riddled the right engine, and the third ignited the left engine. "He stayed with it for three passes," Ward recalls. "After he went down I was singing his praises." Much later, Tomba was captured at Goose Green, where "we needed an interpreter," Ward continues. "Tomba at first refused. Then he heard he was a bit of a hero around the British fleet and became a first-rate interpreter, a huge help." Neill Thomas and Lieutenant Commander Mike Blissett, on CAP, picked up four inbound Skyhawks. Each Sea Harrier destroyed one and might have downed more but for low fuel.

Still the Argentines kept coming. Gonzalez was in a flight of four, at very low level: "I was the leader. We came over the hill. In front of me, more than 10, 13 frigates! Transport ships.

What will I do? I see one frigate, release one bomb, flew very low level between ships." One of the four was brought down by Lieutenant Commander Rob Frederiksen.

Now six Skyhawks swept in on Argonaut, putting two thousand-pound bombs into her hull. Neither exploded—they were later defused—but they caused heavy internal damage. Then Gonzalez's three Daggers went after Ardent, catching the ship at an angle that blanked out all but her small-caliber guns. She caught a thousand-pound bomb astern; two other bombs bracketed the hull but didn't explode. Grupo 5 Skyhawks ran in, aiming for the beachhead—and also poor Ardent, which took two more bombs. Three Daggers strafed Brilliant but were picked off by 801 Squadron's Ward and Steven Thomas.

Three Argentine Navy Skyhawks attacked the crippled Ardent, this time with vane-retarded Snake Eye 500-pounders, most of which struck the ship and exploded. Listing badly and afire, the frigate was abandoned. It sank later that day.

The 800 Squadron CAP spotted the A-4s and went after them; none survived. With only four operational Skyhawks left, the Argentine navy would fly one more mission before leaving Bomb Alley to the air force. By the end of the day, Argentina had lost five Skyhawks, five Daggers, and two Pucarás, nine of them to Sea Harriers. The British had lost Jeff Glover's GR.3 and two helicopters to ground fire.

Contrary to expectations, the Sea Harriers and GR.3s proved effective and durable. "We flew nearly 1,500 missions, with 98 percent serviceability," says Gedge. The hapless Argentine pilots were running on nothing but courage—and the tender care of the ground crews, who spent freezing nights resuscitating the riddled aircraft.

The Sea Harriers were stretched to their range limits. Neill Thomas says that because they could land vertically, Harriers didn't need much fuel in reserve. "As we went on," he says, "we began getting shorter and shorter on fuel. You got used to it." To which Gedge adds, "You know you're going to land the first time. Landing allowance is about 400 pounds." By comparison, he notes, the figure for the F-14 is about two and a half tons.

The crews were also learning how to nurse the aircraft in harsh conditions. Gedge recalls putting "a thin cling film on the navigation stuff in the cockpit" to keep salt water out. At night, Sidewinder missiles were dried out in the bread oven. They also improvised some countermeasures: "We didn't have a chaff dispenser," recalls Rob Frederiksen, "so someone came up with putting the stuff in the air brakes."

And they flew in every kind of weather, day or night. "If we could see the wake and see the deck when we got there, we could land very safely," says Thomas. One Harrier was guided home by flares tossed behind the ship.

Because the haul to the carriers was so long, the Argentine radar at Port Stanley could watch the British fighters come and go. The fighter-bombers were now getting through a radar-detected hole in the CAP. Two days after British forces were well entrenched on the beach, Grupo 5 Skyhawks darted through such a hole, this time going after HMS Antelope. "I remember this mission in particular," says Carlos Rinke. "In the three minutes I had contact,

flying with Guadagnini. He died in that mission," shot down by a Sea Wolf from Broadsword. "That was the mission I feel in a special way because I miss my partner, my leader." But they punched two holes in Antelope.

Inflight refueling gave the Skyhawks greater flexibility than the Daggers. "Because of air refueling," Rinke continues, "we could fly in low levels 70 miles from the target, then 10 to 15 miles, about 10 to 20 minutes, at 30 to 60 feet. The last five minutes to the target we needed to fly very very very low. Ten feet to 30 feet. We put the throttles to maximum but the plane probably flew 450 knots, 480 knots, in low level. We reckoned we had about a 50 percent probability of returning to base."

That night, one of the unexploded bombs lodged in Antelope detonated, setting her afire. The frigate sank the next morning. And a Sea Harrier crashed on takeoff from Hermes, killing Lieutenant Commander Gordon Batt. The next day brought further losses of Argentine aircraft but little damage to the ships, as the bombs were still not arming.

Then Bomb Alley went quiet for 24 hours as the adversaries, like knife-wielding combatants in a room gone suddenly dark, briefly pulled back. May 25 would mark the 192nd anniversary of Argentina's independence, to be celebrated with deadly fireworks. Expecting trouble, Admiral John Woodward moved his battle group closer, barely 60 miles east of Port Stanley, to give the Sea Harriers more time on station, and put Broadsword and Coventry on guard north of Pebble Island.

A flock of Skyhawks probed San Carlos through the morning but were deflected by anti-aircraft fire, which destroyed one of them. Always helpful, the Argentine gunners at Goose Green shot down another. Later, Captain Hugo Palaver's Skyhawk was killed at long range by a Sea Dart. "He was our squadron leader and a very respectful person," Carlos Rinke says. "I was very sad about his death." Afterward, he adds, "the thinking was a little bit...vengeful."

Perhaps in that spirit, six more Skyhawks headed into battle. Two turned back with technical problems, but four pressed on, attacking each northern picket ship in pairs. Sea Harriers saw the Skyhawks but were warned off by Broadsword—just as the ship's radar lock-on broke. Rinke and his leader made their run. Three bombs missed, but one skipped into the stern and fell into the sea on the far side without exploding.

The two Skyhawks heading for Coventry were also seen, but the Sea Harriers were again told to break off while the ship's anti-aircraft did the job. Coventry missed with a Sea Dart; then, as she maneuvered to present a smaller target, she blanked out Broadsword's radar. First Lieutenant Mariano Velasco put three bombs into Coventry, all exploding deep inside the hull. Within minutes, the destroyer, swarming with rescue boats and helicopters, capsized.

Rinke calls it their most effective attack. "We went with four planes and returned with four planes," he says.

Even as Coventry died, two Super Etendards were taking off, each with an Exocet. With no Neptune to guide them, the Argentines improvised a clever alternative to find the battle group.

Harriers were instructed to drop below the horizon of the Port Stanley radar 50 miles from their ships, but their disappearance from the radar screen had, over time, pointed toward one area. It wasn't perfect; a few days earlier, an Exocet mission had been scrubbed when no ships were detected. This time, the Supers flew well north to meet a tanker, then turned south to stalk the British fleet. When they sensed radar emissions, they dropped down to 50 feet.

Ahead of them, the carriers, with a thinned escort, covered Atlantic Conveyor, which was en route to San Carlos Water. Since the first Exocet attack, the RAF had developed a ruse: Four Lynx helicopters with electronic decoys would position themselves to lure the Exocet toward an imaginary target. With the helicopters hovering at 100 feet, the sea skimmer would pass harmlessly below them.

Forty miles northwest of Hermes, the Super Etendards popped up and swept the ships with their radar, which the British immediately detected. Again picking the first target they saw, the Argentine pilots launched their missiles more than 20 miles out, then veered away, outrunning the Sea Harrier CAP. The ships launched chaff and turned to bring their weaponry to bear on the Exocets.

One of the missiles evidently dropped into the sea. The other, momentarily bamboozled, flew past the carriers until its small internal radar found Atlantic Conveyor. The missile drove well into the hull before exploding, igniting tons of fuel. Abandoned and left to burn, the transport sank several days later, taking with her much of the materiel that had been intended for the ground war just beginning.

Before the attack, crews aboard Conveyor had been feverishly "blading up" two of the RAF Chinook heavy-lift helicopters, which had been partly disassembled and covered for the crossing. One was completed and both were scheduled to enter service the next day. "They were test flying that Chinook when the ship was hit," recalls Anthony Stables, who commanded the heavy-lift squadron and watched as "three Chinooks, all support, spares, blades, tools—everything" were lost. "We then had 75 people, one Chinook. No equipment. No armament. No fuel. Absolutely nothing. Put an end to my war, really."

The surviving Chinook—call sign Bravo November—carried troops and howitzers and tons of everything else in impossible wintry weather. During one whiteout, the big tandem-rotor helicopter caromed off a stream bed and somehow kept flying. Later it ferried 81 fully armed troops, then went back for 75 more. None of that is in the owner's manual.

The U.S.-built Shrike missile, which homes on radars, would be employed to take out the Port Stanley radars. Two Vulcans were fitted with the weapons in May, and the missions fell to Neil McDougall. The first aborted, but two days later, on May 30, the missiles managed to silence one of the radars, but only for a day. A mission on June 2 carried four Shrikes and was destined for an excellent adventure.

After loitering for about 40 minutes and hearing nothing, McDougall eased the Vulcan down toward the runway, causing one of the anti-aircraft units to turn its radar on. Two Shrikes destroyed the battery and its crew. Still the Vulcan lingered, but the Argentines kept radar

silence. McDougall finally headed north to meet his Victor. His aircraft had just started taking on fuel when the tip of the Vulcan's refueling probe broke off. The crew would have to divert to Brazil.

"Our lords and masters had designated an airfield in northern Brazil," says McDougall. "The crew had a bit of a chat. A jungle airstrip—too easy to disappear there." McDougall's crew feared that the Brazilians, to avoid a political mess, might arrange for the Vulcan to vanish. The crew quietly decided to head for Rio de Janeiro—and high visibility.

Brazilian fighters rose to meet the Vulcan, urging McDougall toward the northern field. But his remaining fuel wouldn't buy even a single go-around; he had to land. At 20,000 feet, the Vulcan was cleared for a straight-in approach to Rio about six miles from the runway—a 30-degree glide angle. McDougall, who'd been flying Vulcans for 20 years, put the huge delta-wing bomber into a steep spiral, emerging on the glide slope a mile and a half from the threshold but still making 300 knots. Pulling the nose well up, he slowed to 150 knots, dropped the wheels, and delivered a perfect landing without touching the braking parachute. "We were interned for a week," McDougall says. "We got a message one night: Refuel and get out of here in the morning; no restrictions, but do it before they change their minds." They left and landed at Ascension.

Near the end of May, with only one Exocet left, the Argentine military devised a final gambit to sink a British carrier. Two Super Etendards, one armed and one unarmed, would stalk the fleet, accompanied by four air force A-4C Skyhawks. The Skyhawks would follow the Supers to the fleet and the Exocet to the ships.

On the early afternoon of May 30 this odd flock took off from Rio Grande. Two KC-130 tankers met them offshore and topped them off. The group flew on for another 190 miles, putting the aircraft southeast of where they believed the carriers lay. Then they descended through thick cloud and heavy rain for a long run in at 50 feet. British radar saw them coming, but lost them briefly until alerted by the Super Etendards' radar sweep. Having acquired a target presumed to be Invincible, they fired their single Exocet and turned away. For the Supers, the Falklands War was over.

But not for the Skyhawks. Launched some 24 miles from the presumed target, the Exocet quickly left the jets behind. Waiting for the aircraft were HMS Avenger and Exeter, one of them almost certainly the big target the Super Etendard pilot had seen. As the Skyhawks swept in, Sea Darts from Exeter destroyed two of them. The two survivors continued the run, each missing with two 500-pound bombs, then sped away to meet a Hercules tanker. One of them was later marked with a ship silhouette labeled "Invincible." Despite compelling evidence that no British ship—certainly not a carrier—was hit by anything that day, no one in Argentina believes the attack failed. This is the conflict's Grassy Knoll, a source of never-ending conspiracy theory. One former Grupo 4 Skyhawk pilot, Guillermo A. Martinez, now a lieutenant colonel, had studied the matter: "When does Invincible return home? September. The war ends in June," he says, knowingly. "Not even nuclear ships stay out so long."

By early June, ground targets were becoming scarce, and little apparent threat was left in the Argentine air force. Troops were assembling at Fitzroy, not 20 miles southwest of Port Stanley. The end was in sight—a perfect moment for another demonstration of Murphy's Law.

Under cover of poor weather, two landing ships had anchored in Fitzroy Bay and begun to unload. The bad weather lifted, leaving both in bright sunshine. They were consequently spotted by Argentine troops. Back at San Carlos, meanwhile, a Harrier landed hard. The aircraft was wrecked, and worse, the metal plates on a newly installed forward refueling base were twisted. The pad would be out of service for several crucial hours, cutting the Sea Harriers' ability to refuel and, in turn, their time on CAP.

Though they had no inkling of the problems the British were having, the Argentine high command chose this moment to pull out the stops: six Daggers, eight Skyhawks, and even two Mirage IIIs. The Daggers went after HMS Plymouth, hit her with four bombs, none of which exploded, then ran for home. As for the Skyhawks, Carlos Rinke recalls they continued with five airplanes. The five kept low and the formation split to go after the landing ships. Against little anti-aircraft fire, the pilots let their bombs go high enough to arm, and three hit one landing ship, starting a conflagration. The sister ship was also hit and set afire. The attack killed 50 and injured 57—the largest number of British casualties produced by a single action in this war.

As he approached Rio Gallegos, Rinke says, "We saw other planes were taking off. We talked with those pilots on the radio. We said it was a very easy target. We didn't realize the carrier had sent two Harriers at that moment."

The four newcomers rushed toward the smoke billowing up from Fitzroy Bay and toward a small landing craft that was being watched by two Sea Harriers on CAP. RAF Flight Lieutenant David Morgan hit two of them with Sidewinders, then pulled straight up to let his wingman, Lieutenant David Smith, take a shot, which destroyed a third Skyhawk. The encounter brought Morgan's tally to four, the most of any British pilot in the war.