

Missions for America
Semper vigilans!
Semper volans!



The Coastwatcher

Newsletter of the Thames River Composite Squadron
GON
Connecticut Wing
Civil Air Patrol

<http://capct075.web.officelive.com/default.aspx>

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Vol. VI, No. 15

12 April, 2012

SCHEDULE OF COMING EVENTS

14 APR-LifeStar Field Trip-Backus Hospital
14 APR-CTWG SAREX
14 April-Airborne Photography Training-BDL
21 APR-CSRRA High Power Rifle Clinic
21 APR-O Flights for the 103rd at Simsbury
21-22 APR-Corporate Leader's Course
27 APR-TRCS Officer's Banquet
28/29 APR-Glider Orientation Flight Trip
04 MAY-Ledyard A/S Festival-Juliet Long
19 MAY-NER TRAEX
02 JUN-Basic Communications Course
03 JUN-Squadron Maintenance Day
16 JUN-CTWG SAREX
16-17 JUN-Quonset Air Show
23-30 JUN-PAWG RCLS Course
12-14 JUL-Casa Wojtcuk Bivouac
21 JUL-04 AUG-Nat'l. ES Academy
04 AUG-Basic Communications Course

04-05 AUG-Westover Air Show
11 AUG-CTWG SAREX/Cadet Ball
15 SEP-Advanced Communications Course
19-22 SEP-CTWG Guided Training Evaluation
03 NOV-Basic Communications Course
10 NOV-CTWG Conference-Cromwell

CADET MEETING MINUTES

10 April, 2012

by

C/Capt Brendan Flynn

The meeting began with drill. Drill tests were administered while experienced cadets practiced flanks and columns and new cadets reviewed basic movements.

Capt Wojtcuk talked to cadets about using the chain of command and taking questions to one's flight sergeant before going up the chain. She also encouraged cadets to help each other and for older cadets to give newer cadets a hand, especially in completing the tasks on the "elephant page."

Capt Wojtcuk told cadets to email their flight sergeant if they will be absent at a meeting, and to carbon copy her on the email so she sees it as well. Additionally, she informed cadets that they must place F31s, certificates, and any papers that must be signed in the in/out container outside of her office door.

Capt Wojtcuk led a character development session on time management. The lesson reviewed the time study sheets which cadets turned comparing the urgency and importance of activities in which they participate.

C/2Lt Daniels led a leadership lesson on the aspects of critical thinking. He talked about the eight steps of reasoning: purpose, analysis, critical assumptions, point of view, judgement of the validity of data, expressing thoughts as ideas, inferences, and conclusions. Cadet Daniels tied these steps into the critical thinking process.

SM Welch discussed the BCUT and ACUT with cadets. The BCUT will be offered at CTWG headquarters 2 June, 4 August, and 3 November. The ACUT will be offered 15 September. For all classes, the times will be 0900-1300 hours.

A promotions ceremony ended the meeting. Cadet Nicholas Broulliard was promoted to Airman on his completion of the Curry Achievement. Cadet Keith Trotochaud received the Feik Achievement and was promoted to Senior Airman. Cadet Barbara Paquin was promoted to Staff Sergeant and received the Wright Brothers' Award. Cadet Austin VanDevander completed the Rickenbacker Achievement and has been promoted to Technical Sergeant.



C/Amn Boulliard



C/SrA Trotochaud



C/SSgt Paquin

C/TSgt VanDevander



MODEL AIRCRAFT ANYONE?

LtCol Scott Panagrosso, commander of the 1109th TASMG, has donated two radio controlled model aircraft to the TRCS cadets. Capt. Richard Sanders, USCG, a cadet father and model enthusiast, is willing to work with cadets who are interested in model aviation.

As part of the Aerospace Education Program, CAP has instituted a Model Airplane and Remote Control Program. Participants will be offered free membership in the Academy of Model Aeronautics and may become affiliated with the Salem Propbusters R.C. Club.

Due to the high level of activity in the TRCS cadet program, much of the work will be done outside of meeting hours.

Cadets who are interested in participating should contact Capt Wojtcuk who will make arrangements for consultation with Capt. Sanders and Maj Rocketto

FREE EVENT **CSRRA HIGH POWER RIFLE CLINIC**

The Connecticut Rifle and Revolver Association will sponsor a high power rifle clinic on 21 April at the Bell City Rifle Club. Attendees will witness demonstration with the AR-15 rifle, receive instruction, and be given a chance to fire the rifle on the 200 yard range.



Cadet Ray fires from the sitting position.

The Connecticut Junior High Power Rifle Team summer program will be explained and details will be presented on joining.

CAP cadets are invited. A parent should attend. The program is offered at no cost. Details may be obtained from Maj Rocketto. Advance registration must be made by contacting Coach Brad Palmer at palmerpatch@aol.com. This is not an official CAP event.

CTWG RIFLE PROGRAM AND TOURNAMENT

The CTWG will sponsor a series six of Rifle Safety and Marksmanship Training Clinics at the Quaker Hill Rod and Gun Club . The program is free. Ammunition and targets will be supplied through a grant from the CT Friends of the NRA. The range and rifles will be supplied by the Quaker Hill Club. A staff of qualified coaches and instructors will teach and supervise the events.

Shooting will be from the prone position at 50 yards and will run from 0900 to noon. During the morning, cadets can qualify for NRA medals which may be worn on their uniforms.

The series will conclude with the Second CTWG Rifle Tournament with individual and team awards. The tentative dates are:

28 April, 19 May, 23 June, 07 July, 25 August.

The tournament will be held on 15 September.

Entry is by advanced reservation only since facilities are limited. Squadrons who wish to participate should select a day, estimate closely the number of cadets who will attend, and submit the information to Maj Rocketto, CTWG DAE, at the masthead email address.

Requests must be submitted two weeks before the event to allow time for the necessary paperwork. First come, first serve. Squadrons may attend more than one event depending upon the number of squadrons which sign up.

An *optional* event will be held after lunch. Cadets will visit the US Navy Submarine Museum in Groton and tour the first nuclear submarine, USS Nautilus. A museum scavenger hunt will be held and top scoring cadets will be awarded prizes. The museum tour will count for a squadron's AEX award.

SENIOR MEETING MINUTES

10 April, 2012

Commander's Call

Maj Noniewicz, Squadron Commander, reported details from the CTWG Squadron Commanders Call Meeting.

The 14th of April is a busy date for TRCS. A CTWG SAREX will be held with a hub at Danbury. Maj Noniewicz and Rocketto will attend aerial photography training at the Camp Hartell, and TRCS cadets are scheduled to visit the LifeStar helicopter pad at Backus Hospital.

Maj Noniewicz reported that the life rafts will be certified and back in the aircraft for the start of the Long Island Sound Patrol season. LtCol Doucette stated that the season may be extended, starting earlier and ending later than in the past.

Capt Lintelmann, Finance Officer, presented a financial statement for the first quarter. The Squadron is within \$300 of the predicted estimated balance.

Maj Rocketto, Professional Development Officer, reported that every office in the Squadron has been sent an e-mail outlining their status in the CAP professional development program.

LtCol Kinch, Personnel Officer, discussed the proper wear of the flight suit and flight jacket.

Emergency Services Officer Scott Farley reviewed training for the first quarter of the year and requested suggestions for future training. GX-55 computer simulation training will be conducted on 24 April.

SM Welch has been appointed Project Officer for the upcoming BCUT and ACUT courses. Welch will be in charge of transportation arrangements for the courses.

2Lt Looney, Maintenance Officer, will produce a list of needed tasks for facility improvement. A tentative date, Sunday, 03 June, has been set as a field day.

Maj Noniewicz presented a safety briefing on an actual fatal crash which occurred on a flight from Albany to Provincetown. The thrust of the discussion centered on decision making about currency, weather, and personal limits.

CTWG PILOT'S MEETING

31 May, 2012

Four TRCS pilots attended the CTWG Pilots Meeting in Meriden. Maj Neilson briefed the assembly on the dangers of hand-propping. Other topics discussed were professionalism, future photographic missions, and the new concept of regional training for emergencies.

DANIELSON ORIENTATION FLIGHTS

07 April, 2012

LtCol Mode flew six 'O flights with Danielson cadets.

ANNUAL TRCS OFFICER'S BANQUET

The annual Thames River Composite Squadron Senior Officer's Banquet will be held on 27 April, 2012 at the Thames Club, 290 State St., New London. Officers are encouraged to bring guests. Dress is casual.

Ticket are \$30 each. Make you reservations with Capt Wojtcuk no later than 10 April.

JAY CATES GOES WEST

Donald J. Cates, former TRCS Squadron Commander, was killed on March 31st. Jay, a volunteer for Wings of Hope, was flying a donated aircraft from Reedsville, Pennsylvania to St. Louis when the aircraft crashed in Belmont, Ohio.

Jay, a retired submarine service Chief Petty Officer, preceded Col Kinch as Thames River Commander. If any information is received for a memorial service, it will be posted in *The Coastwatcher*.

ALMEIDA REPORTS FROM SUN 'N FUN AVIATION EXTRAVAGANZA

Alcino Almeida, a former TRCS member winters in Venice, Florida and for fifteen years has made the 90 minute trip road trip to attend. He send the following report:

For almost 40 years, Florida's Lakeland Linder Regional Airport has hosted an international fly-in and expo. Sun 'n Fun, which is second only to Oshkosh in numbers attended.

The Fly-in attracts between 160,000 to 170,000 visitors from all over the world and includes about 200 Warbirds and thousands of General Aviation Aircraft. The static displays include homebuilt, factory built, rotorcraft, ultralight and light sport.

In addition to the many popular warbirds, also on display were a Focke Wulf 149D, Grumman Mohawk, Vultee BT-15, Waco UPF-7, Yak 52, SB2C-5 Helldiver, Scottish Aviation Bulldog, and Siai Marchetti ST260. I was disappointed not to see a F-86. Maybe next year..

There is an air show daily from 1:00 to 5:00 PM which includes the finest and largest aerobatic performers in the country. Just to mention a few (there were around 20), this year they included Patty Wagstaff (my favorite), Greg Koots, Skip Stewart, Matt Youkin, Gene Soucy and Jane Weker. The performers are available for photos, autographs or just plain good aviation talk.

The main Air Show attraction was the United States Air Force "Thunderbirds" but also performing was an F-18, a Harrier, the Commemorative Air Force's B-29. *Fifi*, and their Red Tail Squadron flying Mustangs.

Another of my favorite attractions are the over 500 exhibitors in four hangars. You want it, you can find it.

Al flew the F-86 during the Korean War so his disappointment at not seeing one at Lakeland is understandable.

AEROSPACE CURRENT EVENTS

Aargh! Shiver Me Timber

The Office of Naval Research is planning a summer test of an unmanned ship launched helicopter equipped with advance surveillance and object identification units to identify pirate vessels.

*RQ-8A Approaches
USS Nashville During
Sea Trials (US Navy photo)*



The plan is to equip the Northrop-Grumman Fire Scout drones with Light Detection and Ranging (LIDAR) and a computerized database containing details of vessels commonly used by pirates. The LIDAR has the ability to develop a three dimensional image of the vessel which can then be compared to information in the on-board data base. If the drone's computer determines that the vessel in question fits the description of a pirate vessel, a message is sent back to its ship for analysis and possible action.



*O Tempora! O Mores!
Cicero
Ye Olde School Pirates Had
Pride and Displayed a Jolly
Roger!*

Drone Used to Assist Arrest

The Grand Forks, North Dakota Police Department recently arrested a man with the assistance of a Predator flown by the Department of Homeland Security (DHS). After warrants were issued, the police, in accord with a previous agreement with DHS requested surveillance of the man's property in order to determine his location.

The suspect is the first American citizen to be arrested with the use of a drone and the case may become a test for the legality of using them in law enforcement.

However, two Supreme Court cases, California v. Ciraolo in 1986 and Florida v. Riley in 1989 ruled to allow law enforcement to use "public navigable airspace, in a physically nonintrusive manner" as a tool to gather evidence.

Over 300 law enforcement agencies now have temporary Federal Aviation permission to use drones.

B-52 and USAF Celebrates Diamond Anniversary

This Sunday, April 15th, marks the first flight of the Boeing B-52 Stratofortress. The first two prototypes were the XB-51 and the YB-52. The “Y” prefix indicates that it is a service test vehicle. However, the XB-52 was seriously damaged in a hangar test and the YB-52 became the first Stratofortress to fly.

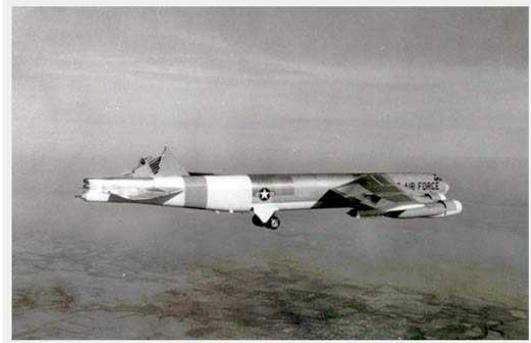
Famed company test pilot Alvin M. Johnston, better known as “Tex” commanded and Lt. Col. Guy Townsend of the USAF Air Research and Development Command served as co-pilot. The tandem seating of the pilots was changed to side by side by a “suggestion” from General Curtis LeMay, Strategic Air Force (SAF) Commander. He did not like the “fighter plane” layout which Boeing had adopted to reduce drag. He believed that a side by side seating would improve crew coordination and allow for a better layout of the instruments and controls. According to Tex Johnston, the “suggestion” took place when Boeing's President, William Allen asked LeMay how he liked the airplane. LeMay replied, "You have a hell of an airplane, Allen. As soon as you put a side-by-side cockpit on it, I'll buy some."



YB-52 Displays Fighter Plane Type Canopy (USAF Photo)

Familiarly known by the acronym, BUFF, the aircraft started with SAC as a high altitude nuclear bomber. With the end of the Cold War, the BUFF has been modified to drop conventional ordnance, precision guided munitions, and to launch cruise missiles.

Due to the missile threat, the '52 found a new role flying low altitude profiles. In 1964, a Boeing test crew out of Wichita encountered severe turbulence over the Rocky Mountains and lost most of the vertical stabilizer and all of the rudder. They managed to maintain control, climb to a safe altitude, and return to Wichita.



Chuck Fisher and his crew not only managed to keep this tail-less B-52H flying but also returned for safe landing (USAF photo)

The BUFF has served in the Cold War, Vietnam, the Balkans, and currently, Southwest Asia. In 1991, a flight of B-52G out of Barksdale AFB, Bossier City, Louisiana flew non-stop to Iraq, struck designated targets, and returned to Barksdale. The flight covered 14,000 miles in 35 hours, setting a combat record for time of flight.



B-52G El Lobo II and North American AGM-28 Hound Dog, one of the first Air Launched Cruise Missiles sit together at the USAF Armaments Museum, Eglin AFB, Florida. El Lobo II was one of the BUFFs which flew on the 35 hour Iraq mission.

On 2-3 September, 1996, two B-52H's from Andersen AFB on Guam flew a 34 hour, 16,000 mile mission. They launched 12 AGM-86C conventional air launched cruise missiles on Baghdad's power stations and communication facilities and returned to Barksdale. This set a record for the longest distance air combat mission.

The "Stratofort" even shared billing with Karl Malden and Efrem Zimbalist, Jr. in the film, *Bombers B-52*, much of which was filmed at Castle AFB. Malden plays a master sergeant who nurses an animosity against his commanding officer, Zimbalist, dating back to the Korean War.

The aircraft is multi-ruled. They serve as reconnaissance aircraft and perform maritime patrols. NASA used modified '52s to launch experimental aircraft



An NB-52A bailed to NASA displays the launch pylon for the North American X-15 and a wide variety of mission marks.

Fifty years ago, the last B-52, an "H" model was produced in Seattle, the last of a line of 744 aircraft. That plane still flies out of Minot AFB in North Dakota. They say that there are grandchildren of the original crews now manning them.

AVIATION HISTORY ARTICLE OF THE MONTH

Operation Black Buck Long Range Bomber Strike on Port Stanley 30 April-1 May, 1982

PART II

Part I discussed the historical circumstances which led up to the festering international dispute between Argentina and Great Britain over who held sovereignty over the Falkland/Malvinas Archipelago in the South Atlantic. After the Argentine army invaded, the British government decided to recover the islands by force. Within six weeks, they put together a naval task force of over 100 vessels and prepared their air and land forces for the upcoming battles.

The geographic problems which faced each side were noted. British and Argentine aviation assets were compared. The British realized that they had to achieve aerial supremacy in order to succeed. This meant denying the Argentine Air Force and Naval Air Force a base for attack aircraft at Port Stanley, the only hard surfaced runway on the islands. Their solution was to put the runway out of action by means of a long distance bomber raid which would require at least one bomber and a minimum of eleven tanker aircraft. Their efforts to assemble the force were covered in Part I. Part II describes the raid and its aftermath.

Part II

The Attack Formation Heads South

Victors and Hawker-Siddeley MR.2 Nimrods (a scion of the deHavilland Comet) based on Ascension had been conducting long range reconnaissance for weeks. They had gleaned data about the Argentine communications and radar frequencies, searched for enemy warships, and provided cover for the oncoming British invasion fleet. On the night of 30 April, the invasion fleet was within 200 miles of the Falklands and the decision was made to apply *force majeure* to demonstrate British commitment to take back the islands. The Vulcan's early morning night attack on the Port Stanley airport would be immediately followed by dawn low level strikes using carrier

launched Sea Harriers and a shore bombardment by the Royal Navy's destroyers and frigates.



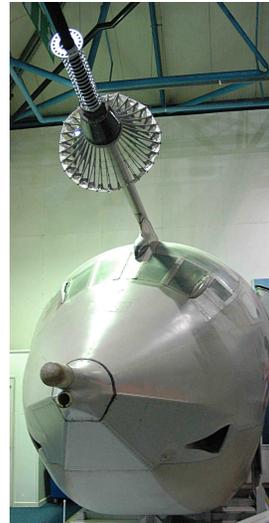
Victor on the roll at Wideawake. On the crowded ramp in the background are Phantoms, a C-130, Vulcans, and a Nimrod.

Just before midnight on 30 April, eleven Victors, one a spare and two Vulcans, one a spare, launched from Ascension. What followed was a 16 hour, 7,800 mile ballet of formation flying and aerial refueling which would make a Royal Ballet choreographer stand up and applaud.

Within an hour, one Victor had a hose deployment problem, returned to Ascension, and was replaced by the spare aircraft. Now there were ten Victors and two Vulcans.

When a seal on a cockpit window in the designated primary bomber failed, the aircraft could not maintain pressurization so it aborted and the reserve Vulcan, XM607, commanded by by Flight Lieutenant Martin Withers and seconded by copilot Flying Officer Pete Taylor became the strike aircraft. Now, ten Victors and one Vulcan bomber, 607, were headed south.

The first refueling occurred on schedule about two hours after departure. Four of the Victors topped off four other Victors and then returned to Ascension. XM607 was carrying a third pilot, Flt. Lt. Dick Russell, one of the few RAF Vulcan pilots with air-to-air refueling experience having eight years of experience as an instructor in that arcane field. A fifth Victor refueled the Vulcan and stayed with the flight. Six Victors and Vulcan 607 continued south.



A museum display illustrates the probe and drogue method used to refuel a Victor.

This method was pioneered by Flight Refueling Ltd., a British firm founded in 1934 by by Sir Alan Cobham, a legendary long distance aviator.

Navigators noted that fuel consumption was higher than planned and this would be critical during the end game. The plan to fly a composite formation, composed of two different types of aircraft, forced both aircraft types to use non-optimal fuel conservation speeds.

Twelve hundred miles south and two hours later, one Victor filled 607's tanks and headed back to Ascension. This left five Victors and the bomber.

During the third refueling, two Victors refueled two Victors and 607 and then headed north to Ascension. The bomber and three Victors continued towards Port Stanley.

The first four Victors, having cut into their own reserves in order to supply the south bound force now found themselves extremely short of fuel as they approached Wideawake. Tankers at Ascension would take longer to scramble than the returning tankers could stay aloft. The single runway required a two mile back taxi for any aircraft to clear it so the incoming tanker force decided to land one after another. They would hold onto their drag chutes to not foul the runway and taxi to the far end. The first three aircraft would block the far end of the runway so a brake failure by the last aircraft

might result in a major disaster. In case of brake failure, the last aircraft would steer off the runway, wrecking one aircraft to save three. Fortunately, the landings were without incident and one of the planes was immediately prepared for its second mission of the day, meeting the returning force in company with three other Victors for refueling.

Unaware of the drama at Ascension, 1900 miles south, one Victor passed fuel to its two consorts and turned north leaving two Victors to accompany Vulcan 607. At the same time, a Victor from the third refueling discovered a fuel leak and Ascension launched a tanker to assist it.

At the next refueling, 2,800 miles south, the flight conditions deteriorated in the vicinity of thunderstorms and turbulence made the refueling process more difficult for the tiring crews. The Victor detailed to accompany the Vulcan on last stage south hooked up and started taking fuel. The bucking aircraft put too much stress on its fuel probe and it snapped. It could no longer accompany the Vulcan south. The only solution was for the last two Victors to swap roles. That meant that the fuel originally transferred had to be pumped back. This was started with some difficulty but they eventually flew clear of the storm cells and completed the transfer. Unfortunately, the time taken to perform the swap had cut into the fuel reserve of the returning Victor. The Vulcan 607 and the substitute Victor, commanded by Squadron Leader Bob Tuxford continued south.



Forty Degrees South

This painting by Ronald Wong depicts the struggle to refuel in the turbulent conditions engendered by the surrounding storm cells.

The last southbound refueling took place about 350 miles north of Port Stanley. The fuel was proportioned out so that the Vulcan could make the attack and return to a refueling point off the coast of Brazil. The Victor, originally planned to have enough fuel to return to Ascension but now found itself short by 600 miles. Tuxford headed north and decided to maintain radio silence and wait until after the raid to notify Ascension of their plight.

The Attack

Three hundred miles north of Port Stanley, Withers initiated a step descent to 300 hundred feet above sea level in order to stay below the Argentine radar. Sixty miles out, the H2S bombing radar was switched on but failed to display any useful image. Fifty miles out, the image stabilized but failed to show any indication that West Falkland lay ahead of them. Deciding that they were too low, they increased altitude to 500 feet and picked up a return from Mount Osborne, some thirty miles west of the target. Their dead reckoning navigation and the INS had put them within one mile of their the position predicted by Flt. Lt. Gordon Graham, the Nav-Plot Officer. It was 0430 local time and the Argentine radar operators picked up a contact to the northeast, heading 245 degrees at 300 knots! Then, the contact faded out and the Argentine air defense lost several minutes speculating on whether or not the contact was friend, foe, or just a false return. Nevertheless, an alert was issued and the anti-aircraft batteries surrounding Port Stanley were activated.

Forty miles out, Withers pushed the Vulcan's engines to maximum power, raised the nose and started climbing. Leveling off at 1,000 feet, Withers setup a heading of 240 degrees and trimmed it for 330 knots, indicated air speed. This calculated out to 440 knots ground speed

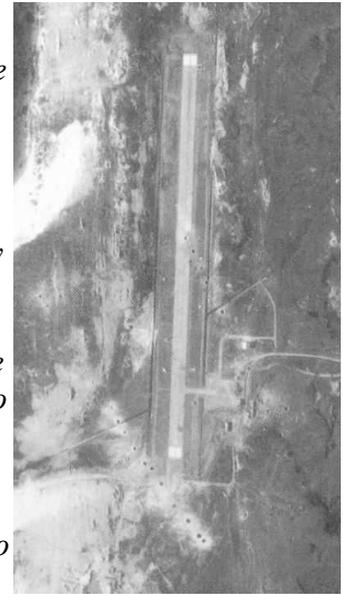
of just over seven miles per minute. Co-pilot Taylor switched on the Identification Friend or Foe equipment which was set to respond to search radar with a code used by Argentine aircraft. The spoof might buy them precious time.

At the Nav-Radar station Flt. Lt. Bob Wright was setting up the Navigation and Bombing System (NBS), choosing three headlands, distinctly visible on the radar, as off-sets for the bomb run. The off-sets were all at known distances and bearings from the runway and provided some of the data necessary to determine the run in and position of the aircraft for bomb release. True airspeed, altitude, and a wind correction factor were the other parameters. The radar glowed and the gears ground as the old analog computer fed steering and timing information to the pilot. Two minutes out, the bomb bay door swung open and Withers prepared to manually release the ordnance in case the NBS failed to do so automatically.

About 40 seconds out, the NBS initiated the bomb drop sequence and 21 1,000 pound bombs headed earthward. The ECM gear was now picking up the gun laying radar but the aircraft jamming was successful. With an eye on the fuel gauge, Withers abandoned the plan for a low altitude egress, applied maximum power, banked steeply, and turned for home. The Argentine defenses at last reacted and futilely lit up the sky behind them with a half hour anti-aircraft display.

The stick of 21 bombs walked across the airfield scoring one direct hit and one near miss on the runway. Vulcan 607's radio sent out the coded message indicating a successful bomb run: "Superfuse!" Unsuccessfully patched up by Argentine engineers, the runway was too damaged to support jet attack aircraft for the entire 12 week war.

Bomb craters are evident running diagonally across the lower left, all of which miss the runway. The bomb craters which damaged the runway can be found about half way down its length. Although the runway was closed to attack jets, C-130s and Short Skyvans were able to use the undamaged section to bring in supplies.



(Ministry of Defense Photo)

Withers knew that he did not have enough fuel to get back to the next refueling point. But when Tuxford, in the Victor, heard the radio report of the bombing he broke radio silence and notified Ascension of their plight. Ascension dispatched a tanker and a Nimrod to the location, approximately 300 miles east of Rio de Janeiro. The Nimrod's excellent radar would be used to assist the returning aircraft make contact with the tanker. Tuxford's Victor arrived first, refueled, and headed home. The Nimrod loitered in the vicinity of the Rio rendezvous but its air refueling system was not yet operational and it started to consume its reserve fuel. Its parlous fuel state forced it to head back to Ascension but it continued to sweep the skies with its search radar when spotted Vulcan 607 in time to assist it to make meet the tanker.

The refueling point was over the Atlantic, 300 miles east of Rio de Janeiro. Tuxford, no longer committed to radio silence, notified Ascension of his plight. A Victor tanker and a Nimrod long range maritime patrol plane were launched.

But the mission faced one more trial. The Vulcan's probe did not fully lock into the basket and a flood of fuel washed over the windscreen, making position holding extremely difficult. The Vulcan was taking fuel so Withers decided to maintain contact rather than disengaging for fear that damage had been done and he would not be able to reconnect. Wright, the Radar Navigator, came up to the flight deck and squatting down, was able to see the tanker through the bottom of the windscreen. He started a running commentary to Withers, helping him to maintain contact until 36,000 pounds had been transferred, enough to make it back to Wideawake.

Black Buck One utilized two Vulcans, thirteen Victors, a Nimrod, 200,000 gallons of fuel, and nineteen inflight refuelings to accomplish what at that time was the longest bomber attack in history. The British had opened their offensive in style.

Over the next 42 days, the RAF laid on six more Black Buck Missions. Black Buck Two was an unsuccessful attempt to further damage the runway.

The next two missions were aborted, one due to high winds and one due to a failure of a refueling system.

The fifth mission launched a Shrike anti-radiation missile at the Argentine long range search radar. It caused minor damage. The radar crew shut down the system so the Vulcan could not launch another Shrike.

Mission Six destroyed a Skyguard gun laying system which controlled a 30 mm Oerlikon battery. On their return, their refueling probe broke so they diverted to Rio de Janeiro where the aircraft, XM597, and crew were interned for nine days.

The final mission, on June 12th, was flown by Martin Withers, again in Vulcan 607 attacking troop positions on the airfield, causing some damage. The war ended two days later.

Although the British campaign was a spectacular success, it hovered on the edge of a major military disaster. The British Carrier Battle Group Commander, Rear Admiral John Woodward quoted the words of Wellington commenting on Waterloo, "It was a damned near-run thing."

British success was earned by their consummate military professionalism but Argentine failure was due to a series of strategic and tactical mistakes. Strategically, the Argentine military junta, led by General Leopold Galtieri and egged on by Admiral Jorge Anaya seriously miscalculated the British will to fight. Prime Minister Margaret Thatcher was unpopular and the Falklands were seen as more of a liability than asset. Moreover, the British were planning to sell two aircraft carriers and winter, a poor season for mounting an amphibious invasion in the sub-polar South Atlantic was six months off. The Junta, as unpopular in Argentina as Thatcher was in Great Britain, were impatient and attacked prematurely.

The Junta saw an opportunity to not only resolve a long lasting dispute but also to improve its image in Argentina. Ironically, the only political image improved was that of Thatcher who acted resolutely and swiftly.

One cannot fault the gallantry of the *Fuerza Aérea Argentina* (FAA) and the *Comando Aviacion Naval Argentina* (CANA). It was once said that one should not discount the skill of pilots who come from a country which produces world class polo players and auto racers. However, they were ill served by the high command's inept tactics.

First, the KC-130 aircraft and the A-4 buddy refueling packages were rarely used. One of the first things that the British did after retaking the Falklands was to extend the Port Stanley runway to over 6,000 feet using easily repairable pieced steel planking. This was entirely within the capability of the Argentines but they failed to do so and lost its use as a land base for attack aircraft.

Then the cruiser, *ARA General Belgrano* was sunk by *HMS Conqueror*, the Argentine Navy returned to port. Their one aircraft carrier, *ARA Veinticinco de Mayo* and its air complement were neutered.

Therefore, for the entire course of the war, the FAA and CANA were crippled by the short combat ranges of their aircraft. This led them to attack the first ships encountered, the picket vessels rather than the ships which they protected. Four warships were sunk and two damaged but the vital carriers and the troop and cargo transports were relatively safe.

The British combat air patrols were numerically weak, a few dozen Harriers, two aloft at a time, but the Argentines never tried mass attacks in order to overwhelm the defenses. They sent in strike packages of five or six aircraft at a time and initially, they were savaged by the British. When they switched to low altitude approaches, the fusing on their bombs prevented many of them from detonating. Thirteen bombs hit British ships and failed to explode!

They also failed to utilize feints and multi-directional attacks. As a result, British air defenses could be localized and concentrated on a few aircraft.

Finally, Argentine government, fearful of a bomber attack on the mainland, withdrew their Dassault Mirage IIIEA interceptors from front line bases. These aircraft could have served as escorts for the Skyhawk and Dagger attack aircraft and would have nullified the British Sea Harriers which ultimately shot down 24 Argentinean planes with no losses.

Thirty Years Later

From a military standpoint, the Argentine air forces may be marginally stronger than they were 30 years ago but their fleet is aging. When they invaded the Falklands in 1982, they had the advantages of surprise, a short supply line, and overwhelming force. Today, the British have build a new airfield at Mount Pleasant where they base a flight of Eurofighter Typhoons and operate regular passenger and cargo service to and from Great Britain. The Royal Navy maintains a constant presence with a destroyer or frigate, a supply ship, and several patrol boats. A battalion or infantry, reinforced by a signals and engineer detachment is stationed there and training a company of local militia.

Argentina is now under an elected civil government and its yearning to reclaim the Malvinas remains unabated. They continue to put economic pressure on the Falkland Islanders and petition the United Nations to end what they construe as a vestige of colonialism. The possibility of off shore oil fields only fuels their demands for transfer of the Falklands to Argentina. Nonetheless, the Falklanders prefer to continue their status as a self-governing British overseas territory. Whether the UN principle that self determination ought be a fundamental right of a people trumps claims of colonialism remains to be seen.