

PUSHING THE ENVELOPE

PIONEER ROCKET MAIL 1928-1963



PURPOSE & SCOPE:

This Astrophilately exhibit provides an overview of pioneer rocket mail organized by experimenter. It begins with the world's first rocket mail flight in 1928 by Friedrich Schmiendl. Key amateur rocket pioneers and their philatelic cargo are shown. The exhibit concludes with America's first official missile mail in 1959.

USE OF COLOR:

Black text displays the experimenter or rocket flight.

Blue text concerns a philatelic aspect of the event.

Red frame denotes a significant item of interest.

ORGANIZATION & TREATMENT:

The covers are generally arranged chronologically, divided into sections corresponding to each experimenter. Each section introduces a new experimenter and shows examples of envelopes flown by rocket arranged by the country in which the flight took place.

Following most successful rocket mail flights, experimenters chose to post the envelopes in the regular mail stream. This required sufficient postage to pay the letter rate. Those that did not enter the government mail service have only Cinderella rocket labels.

The material shown has been carried by rocket except when marked as unflown. While items bordered in red are scarce and worthy of particular note, none of the material is considered rare. Instead, it should convey to the viewer the earliest documentation and celebration of a new form of flight.



Sykora Cinderella rocket stamp

EXHIBIT PLAN:

I. Purpose, Scope & Plan	1928-1963 Rocket Mail	VIII. William S. Sykora	1935 United States
II. Friedrich Schmiendl	1928-35 Austria	IX. Keith E. Rumbel	1936 United States
III. Reinhold Tiling	1931 Germany	X. Professor Russo	1936 United States
IV. Alan H. Young	1934 Australia	XI. Willy O. Ley	1936 United States
V. Gerhard Zucker	1934 Italy, Germany, Holland	XII. Antonio V. Funes	1939 Cuba
VI. Karel Roberti	1935-36 Holland, France	XIII. Churchill Research	1963 Canada
VII. Stephen H. Smith	1935-37 India, Sikkim	XIV. US Navy	1959-60 United States

Friedrich Schmiendl

Austria

Friedrich Schmiendl (1902-1994) was a chemist and inventor. His first flight, a combination stratospheric balloon which reached 16,000 feet and a rocket with solid propellant motor, carried 200 envelopes. Because there was no guidance or tracking possible the covers were not recovered for three months. Three years later, in 1931, his were the first letters for delivery by government post after flight. Schmiendl was a genuine pioneer of high-altitude research who, without military support, had succeeded in building sophisticated rockets to send mail to isolated villages. Such was the demand for his rocket covers that he soon realized they could finance further experiments.



A cellophane balloon filled with hydrogen with a corrugated pressure box permitted the launch of a small rocket at an altitude of 16,000 meters. The balloon ultimately reached a height of 18,800 meters.

Without onboard tracking it took 3 months before the 200 envelopes were found and returned to Austria from Hungary.

Catapult Rocket K2 was vertically launched from a boat and then deflected by a timer.

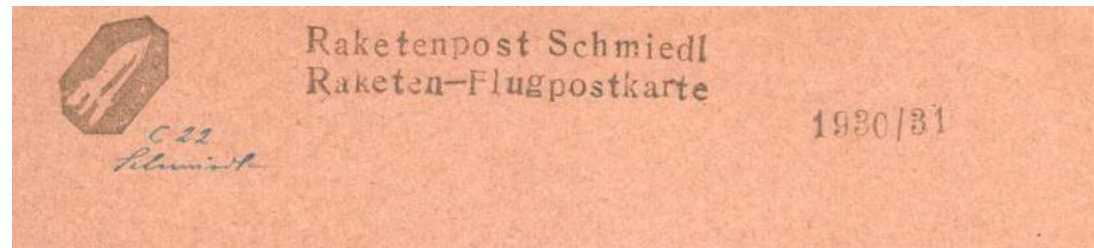
In the early 1930s oceangoing ships were experimenting with ship to shore aircraft to improve mail delivery by a day. Schmiendl believed rockets could be a cost effective alternative.



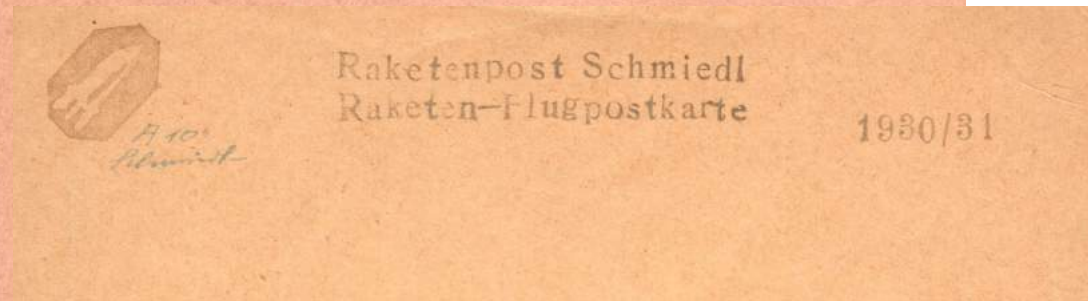
One of 383 covers flown on a test for rocket catapult mail.

Friedrich Schmiedl

Austria



Unused postcards for the Feb 2, 1931 V7 flight in Beige and Chamois. Both are numbered and autographed by the experimenter.



The first of the final series that Schmiedl launched before the outbreak of WWII. N1 and N2 were launched at Aiblwirt and post-marked at Edelschrott.



N3, N4, and N5 were fired at Pernegg in April 1935. Permits to launch were getting hard to get and insurance against damages became very expensive. With the world situation deteriorating and the "Third Reich" next door in Germany, the next launch in December would be his last before the war.

N4 consisted of 600 cards with 150 of four types. Type D had a brown 12 groschen stamp on grey-green paper.

Reinhold Tiling

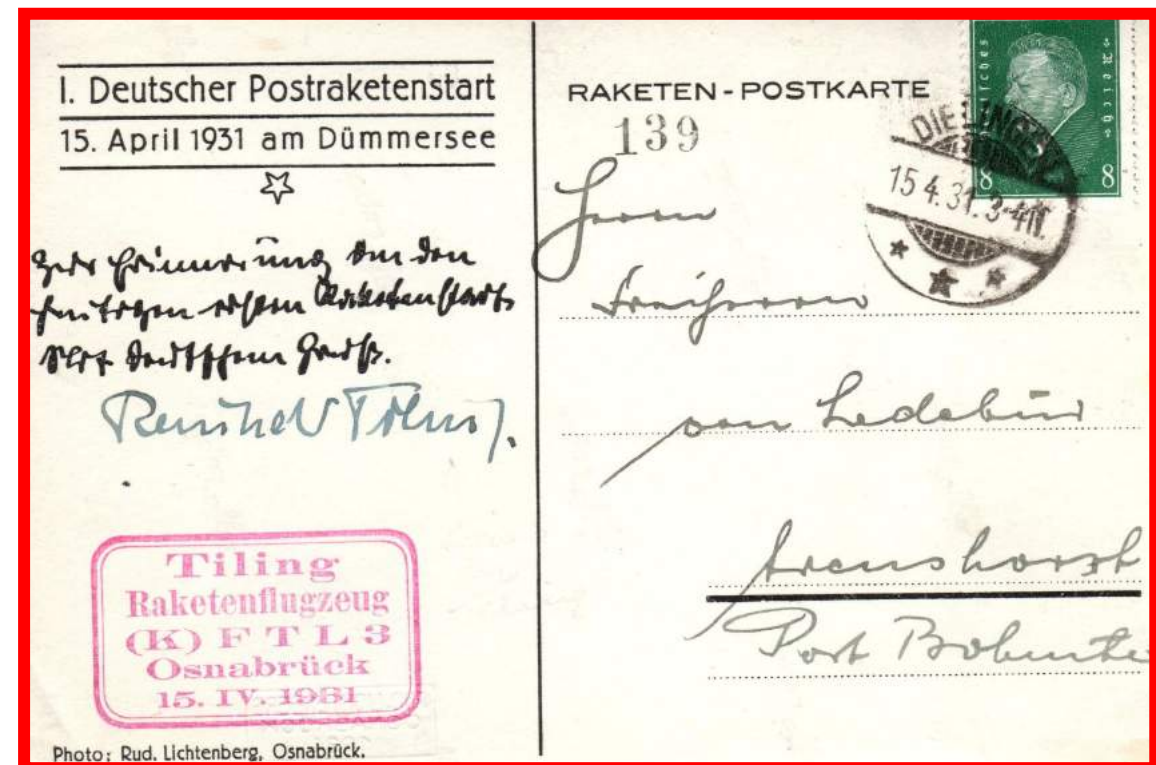
Germany

Reinhold Tiling (1893-1933) studied mechanical engineering before volunteering as a fighter pilot for Germany in WWI. In 1926 he became an airport flight controller and started his first experiments in 1928. He developed re-usable rocket planes which start as a rocket and land with swinging-out wings. On 10 October 1933, the overheating of the powder needed to power the rocket created an explosion in his workshop led to the death of Tiling, his assistant, and his mechanic.

During the short period that Tiling conducted his tests, his swing wing rocket planes and gyro rockets with fins acting like helicopter propellers made considerable progress.

Of five launched on Apr 15, 1931, the first exploded with the others landing at distances up to 7km away.

The first German postal rocket rose more than 1500 meters before the wings engaged for a 5 minute glide to land near the launch site.



Rocket Plane (K) FLT 3 was the only Tiling flight to carry mail. The complete story of rocket mail cannot be told without one of these 188 cards.

Photo: Rud. Lichtenberg, Osnabrück.

Alan Young

Alan Young was a Brisbane architect, publisher, and President of the Queensland Air Mail Society who corresponded with Friedrich Schmiel, Gerhard Zucker and Stephen Smith. Standard ship rockets used on the first three flights were used to fund the society's experimental *Zodiac* and *Orion*. Young viewed himself as a genuine rocketry pioneer. He obtained technical details on Austrian and German rockets but had a plumber with some knowledge of explosives construct the rockets. *Zodiac* would explode on the launch ramp while *Orion* took off perfectly, quickly nose-dived, clipped a tree and was deflected into the river where it was destroyed. While subsequent smaller rockets would travel several hundred feet in altitude or downrange, after three years the efforts came to an end with criticism that they were but stunts to raise money from philatelic sales.



Almost immediately after leaving the ship, the metal container attached to the rocket containing 897 letters, got detached and fell into the Brisbane River from where it was later fished out.

Australia

Gerhard Zucker

Germany

Gerhard Zucker (1900-1985) was a rocket enthusiast and fraudster. A butter and cheese maker, he first came to public notice flying fireworks-type powder "rocket post" flights. Two years later he was touring Germany with a 15 foot long recoverable cruise missile. It could presumably cruise 400 km at an altitude of 1000 m and a speed of 1000 m/s. Reportedly able to deliver a bomb load or take reconnaissance photographs Zucker demonstrated his rocket for the Nazi government in 1933. In reality the missile was just a hull with eight powder rockets. His excuse for regular failures was his inability to get the secret rocket fuel and lubricants needed for success. After the war he became a furniture dealer and resumed firing missiles and selling both flown and unflown rocket mail. A launch in 1964 resulted in fatalities and he continued to pedal fraudulent covers into the 1970s.

On the 1st Night Rocket launch the vehicle exploded early in the flight.

90% of the 370 flown covers were considered lost but this is unlikely. Envelopes intended for another launch may have been cancelled and added to make up the shortfall.



Gerhard Zucker Italy



Gerhard Zucker Holland



Instead of returning to Germany following the disappointing attempts at Sussex Downs in Great Britain, Zucker travels to Trieste in Italy and Katwijk aan Zee on Holland.



The second Australian flight occurred 6 months later when a rocket was launched from Fraser Island towards a wrecked Japanese ship being towed to Japan. Not surprisingly, the missile failed to reach the ship. The envelope is signed by both the experimenter and the ship captain.

Karel Roberti

Karel Roberti, a Dutchman, had no scientific or technical training. His projectiles were just sky rockets purchased from well-known firework producers, A J Kat in Leiden. His first rocket experiment on the shores of *Katwijk-aan-Zee* in The Netherlands during December 1934 resulted in an explosion on ignition. Numerous failures followed. The leading Dutch stamp magazine in 1935, *Maandblad voor de Philatelie* concluded in the article "Rocket Post Swindle" that Roberti was just a conman. He then spent the next year launching in Belgium before firing a rocket in Luxembourg in 1936.

Netherlands



Roberti was closely associated with *Nederlandse Raketten Bouw* (NRB), translated as Dutch Rocket Construction Inc. In actuality, NRB did no experiments or rocket construction. It was owned by stamp dealer Gerard Thoolen who was able to peddle the covers at high prices.

Both the powder required to fuel the rocket and the philatelic payload were stored in the steel wings. Due to the weight, the vehicle only flew 180 meters.

Like many examples of rocket mail, these 260 covers flown in "Icarus" were crash mail. On impact with the ground the wings broke.

Karel Roberti Belgium



Beginning with a catapult launch, "Albertine" traveled 100 meters before the fuselage broke off. With many of the 200 covers and 300 photo cards burned or torn to shreds, the wing with the two engines resumed flight.

Karel Roberti

France

One of 500 covers that flew 180 meters before catching fire and plunging to the ground. Cachet on reverse annotates an accident although no envelopes were harmed.



UNFLOWN



After two launches on Sept 9th, the first being flawless and the second bursting into flames 200 yards from the firing point, experimenter Karl Roberti made final arrangements for dispatch mail to travel across the English Channel from Calais to Dover in one of four missiles. At the last minute, orders were received to cancel the flight. This envelope from the rocket *Sweet France*, bears an impression over the stamps that says, "Experience Interrupted on the order of the Minister of the Interior". The cover was not flown.

Stephen Smith

India

Stephen Smith (1891-1951) careers included policeman, dentist, and customs official. He was also described as an aerospace engineer although no evidence of formal training has been uncovered. Beginning with rockets provided by the Oriental Fireworks Company, Smith began a decade-long incremental string of successful flights. As part of more than 270 flights, 80 of which included rocket mail, Smith was first to successfully deliver a parcel intact, fly foodstuffs, transport a live cock and hen (Adam and Eva), and move medical supplies by rocket. He refused to permit his rocketry knowledge to be used in WWII and instead destroyed his notes.



We rejoice in sending by this rocket service, a message wishing long life and happiness to Their Imperial Majesties the King and Queen, on this the occasion of Their Coronation May 12th. 1937.
God Save the King and Queen.
Stephen H. Smith

For Coronation Day two launches occurred. Pilot Rocket No. P. IX was successfully fired, followed by a second rocket, named Coronation Rocket No. 141. The first had 400 cards and the second 350. The plan had been to loft 400 but he was short on stamps and was unable to have them cancelled as the post offices were closed for the Coronation Day. The reverse side bears the autograph of Stephen Smith and the message.

Stephen Smith

Sikkim

Private Secretary to the Maharajah fired rocket number 53 across the Ranakhali River from Ray to Surumsa. Like many of Smith's creations it landed successfully on target.



सिद्धिमा रावामा चिट्टि उडाउने
Tashi Namgyal

Flown near the border with Tibet, the rocket contained iodine, toothpaste, a can of butter, a pack of cigarettes, and matches in addition to the philatelic cargo.

160 covers were launched by Gangtok's Postmaster, R P Ray (autograph in red) and postmarked at the regional post office close to the borders with Bhutan and Tibet.



This rocket was fired by His Highness the Maharajah himself and carried 410 blue green specially printed cards. Smith got permission to use a rubber stamp of the Maharajah's signature on the flown cards.

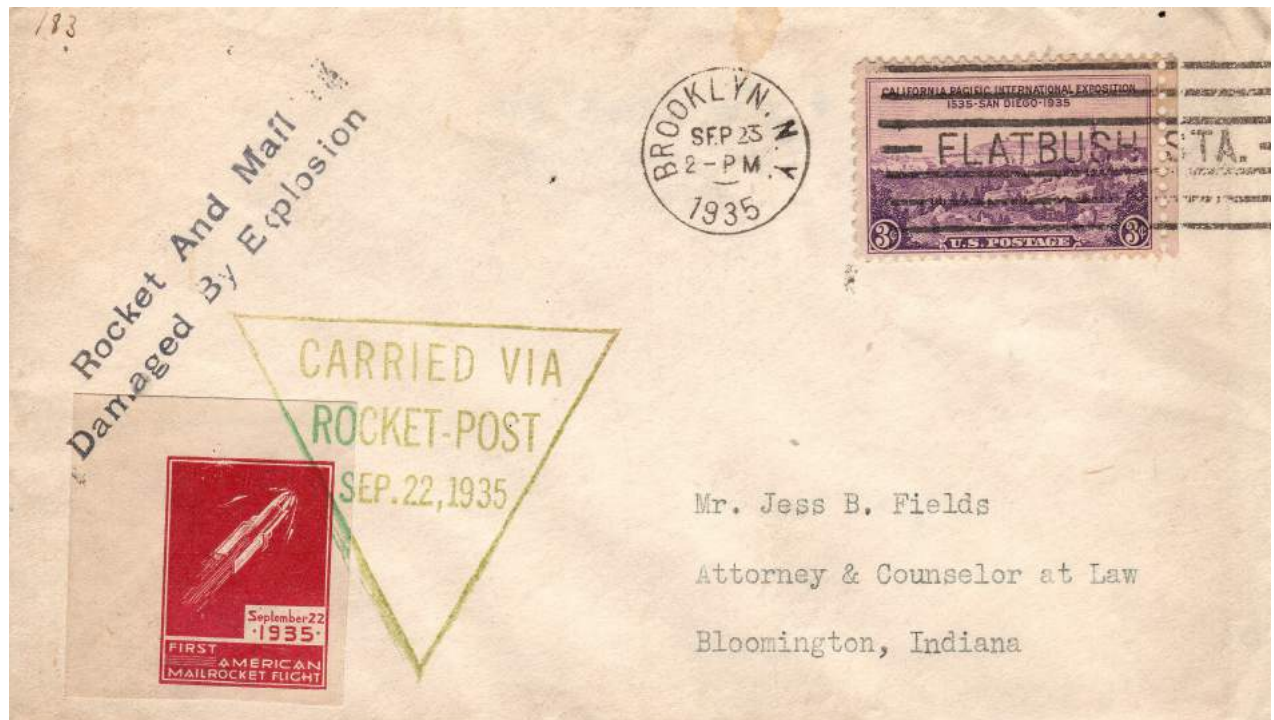


CHUMBI R. 88.
SIR TASHI NAMGYAL FIELD TO BRITISH RESIDENCY.
R. P. Ray

Mr. Stephen H. Smith,
Gangtok
Sikkim.

William Sykora **United States**

William Sykora (1913-1994) is credited with the first rocket mail flight in the United States. Kronstein says Sykora undertook many months of research and numerous test firings before the first mail flight. This is highly unlikely. The first mail flight traveled a few feet before exploding sending steel shrapnel which destroyed 90 percent of the envelopes. The second (and final) rocket the same day flew a few more feet before disintegrating. Sykora was an early science fiction fan who knew great authors including Frederik Pohl, Isaac Asimov, and Robert Heinlein.



One of 198 salvaged covers from the second explosion of the day.

Keith Rumbel **United States**

Keith Rumbel (1920-2008) was listed as a rocket experimenter. In point of fact, his qualification consisted of his role as Post Historian of the Loyal Post No. 37, American Legion, McAllen, Texas. The event, following a few test launches in June, consisted of 5 rockets fired into Mexico and 5 launched into Texas in return. It was amazing no one got killed.



This envelope traveled on one of 5 return flights from Reynosa, Mexico across the Rio Grande

Flights were not without incident. The first missed a car by inches and struck a saloon. Another traveled 50 feet before exploding injuring one. Of the 1500 covers flown from Mexico 578 were lost in the river when two missiles malfunctioned. One round hit a building in Mexico and was seized. The 150 envelopes inside went undiscovered for 20 years.

Professor Russo (A C Roessler (1883-1952)) **United States**

After traveling 100 yards the missile burst open and the mail consisting of 980 covers and an American flag were carried in a fierce gale by parachute from Newark Meadows to east of Newark Bay.



Reverse of a flown cover with July 1st cancel



Following January 31, 1936 flight Ellington, Kronstein and others report that the postal authorities, objecting to the stamp-like label and fantasy postmark, impounded all covers until May 12. Postage stamps on the reverse are sometimes found uncanceled. **New evidence has uncovered examples dated March 6 and 9, May 5, and the example here, July 1st.**

Willy Ley **United States**

Willy Ley (1906-1969) Science writer and founding member of *Verein fur Raumschiffahrt* (VfR), the Society for Space Travel. VfR alums included; Johannes Winkler (first liquid rocket in Europe), Walter Hohmann (orbital mechanics), Herman Oberth (Father of Spaceflight with Tsiolkovsky and Goddard), Wernher von Braun (V-2, Saturn 5), Klaus Riedel (V-2 mobile launcher), and Eugen Sänger (suborbital bomber). Ley's wrote *Conquest of Space* (1949) with Chesley Bonestell, *Conquest of the Moon* (1953) with Wernher von Braun, and *Rockets, Missiles and Space Travel* (1957), a non-technical book widely used by US policy makers.



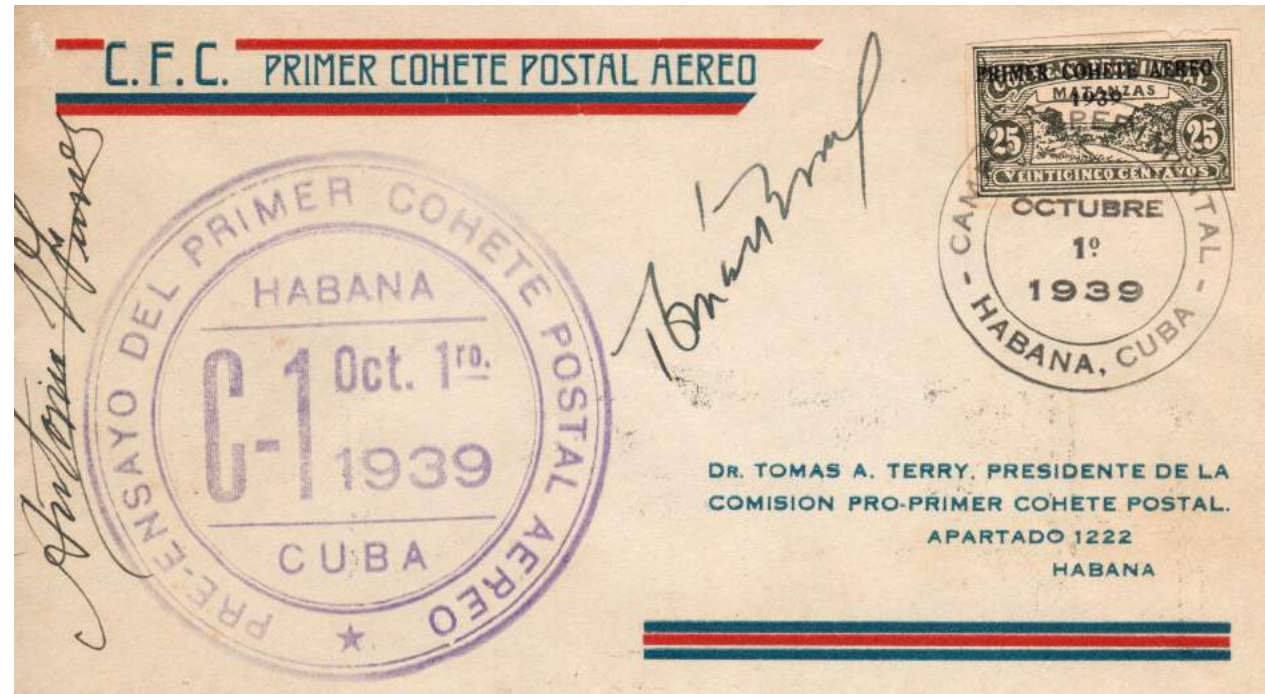
A vertical rocket requires an engine with 2 1/2 times its weight to fly. For the 30 degree incline used with *Gloria*, only a thrust to lift 65 percent of the weight was required. Designed to give aircraft greater stability Dr. Willy Ley added a liquid rocket engine.

Over 6,000 letters and cards took off with much roaring and sputtering as smoke and flames spurted from the tail. It took an immediate left veering straight for 200 spectators before plunging onto the frozen lake. After skimming the ice for 125 yards it soared to a height of 30 feet before crashing 15 yards over the New Jersey line. A second rocket was launched with similar results.

Antonio Funes

Cuba

Antonio Funes, a pyrotechnics expert with DuPont, was hired by Dr. Tomas Terry of the Republic of Cuba Philatelic Club to provide rockets for the nation's first rocket mail. The first test, on October 1st exploded after traveling of just 12 meters at the Army's Fifth Avenue firing range on the seacoast at Mirimar. For the second of four flights, Funes overcame stability problems by arranging six rocket motors in pairs around the middle of the rocket. This resulted in a successful flight of over 600 meters.

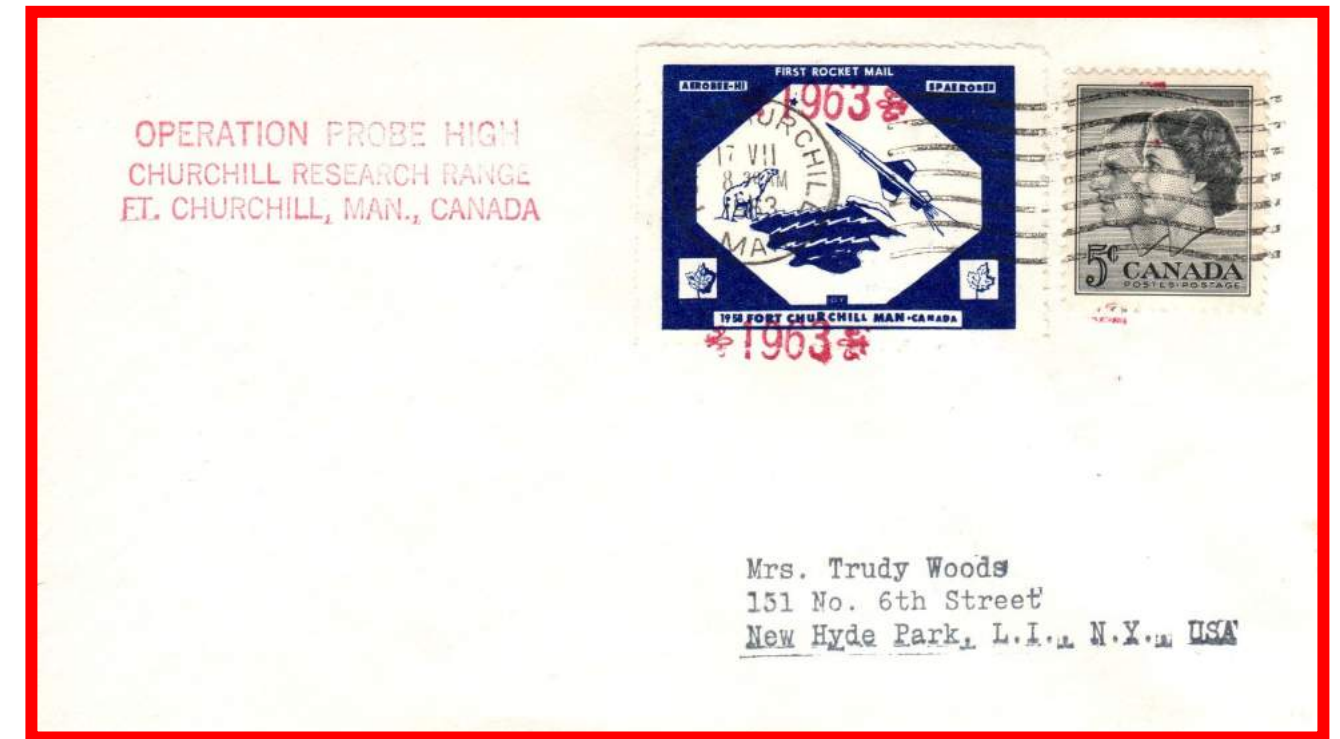


In addition to 80 mint provincial overprinted stamps, 70 copies were applied to the first of three trial flight covers. With the destruction of the rocket 10 of the envelopes were lost. The remaining 60 were posted. A second trial on October 3rd and a third on October 8th were also undertaken using white imprinted labels instead of stamps.

Churchill Research Range (CRR)

Canada

A major rocket campaign initiated in 1963 called Operation Probe High performed experiments to measure the effects of the solar eclipse on phenomena such as cosmic rays. Canadian universities became active in upper atmosphere research in this period and during 1963 the universities of Alberta, Saskatchewan and Western Ontario conducted ionospheric experiments using rockets fired from the Churchill range.

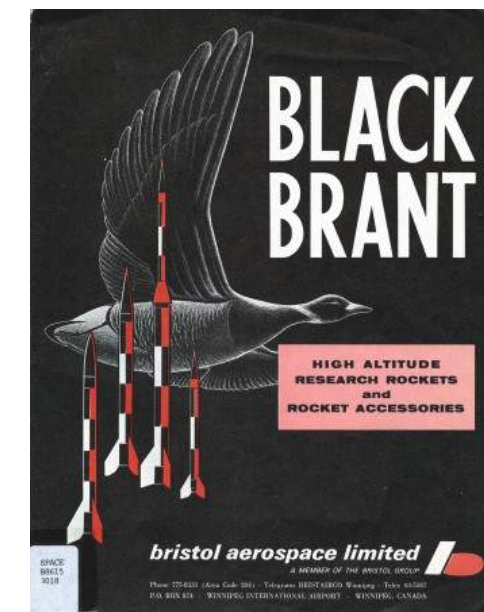


Most sought after envelope in Canadian astrophilately. One of seven postmarked during the joint US/Canadian atmospheric research conducted during the solar eclipse in July 1963.

The third and final test flight prior to the Oct 15th Official Cuban Rocket Mail was conducted on Oct 8th. "Marilyn" was named after Thomas Terry's daughter who was born an hour before the flight. The rocket took off at great speed in the intended direction prior to it being blown over the ocean and landing 200 meters from the launch point.



The rarest Cuban cover with only 16 flown.



US Navy

United States

"Before man reaches the moon, mail will be delivered within hours from New York to California, to England, to India or to Australia by guided missiles."

- Postmaster General Arthur E. Summerfield



THIS PATRIOTIC COVER, NO. 41 OF FORTY-THREE COVERS, WAS FLOWN IN THE UNITED STATES ARMY TEST MISSILE WILLOW ON AN OFFICIAL DRY RUN, ON THIS FOURTH DAY OF JULY, 1960, AT EXACTLY THIRTEEN HUNDRED HOURS, OVER A DISTANCE OF 409.4 MILES, FOR THE MEMBERS OF THE 108TH CIC GROUP, USA, AT NO ADDITIONAL EXPENSE TO THE UNITED STATES GOVERNMENT.

J. J. Perry
COLONEL, INF-410,
COMMANDING.

US Navy

United States

THE POSTMASTER GENERAL
WASHINGTON

FIRST OFFICIAL
MISSILE
MAIL



Mr. A. S. Gammon
Postmaster General
Kuala Lumpur
Federation of Malaya

Many of the 43 covers flown later were reported destroyed at the request of the U.S. Government.

Although 3000 envelopes were carried on the flight only 99 were sent internationally. One was sent to

Pacific Missile Range
Point Mugu, California

OFFICIAL BUSINESS



PLEASE USE TO AVOID POSTAGE, \$300

AD FEES PAID DEPARTMENT

Dr. A. E. Konold
Director of Education
San Fernando Valley State College
Northridge, California

Arthur E. Summerfield
5-1-59

U. S. MISSILE MAIL
May 1, 1959
Point Mugu, Calif.

In summary,

pioneer rocket mail was a dead end for both the advancement of rocket science and the routine movement of mail. Unlike Tsiolkovsky, Goddard, Oberth and von Braun, rocket mail "experimenters" mostly focused on the creation of philatelic collectables with attractive Cinderella's, beautiful cancels, cachets, and autographs.

The fact that many envelopes were singed, waterlogged, or mangled by bursting projectiles, instead of reducing value, instead tended to have the opposite effect. They told a postal history tale of a bygone era when starry-eyed amateurs dreamed of being steely-eyed missile men.