

PUSHING THE ENVELOPE

PIONEER ROCKET MAIL 1928-1959



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 Schmiedl. 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. Friedrich Schmiedl	1928-35 Austria	VI. William S. Sykora	1935 United States
II. Alan H. Young	1934 Australia	VII. Keith E. Rumbel	1936 United States
III. Gerhard Zucker	1934 Italy, Germany, UK	VIII. Willy O. Ley	1936 United States
IV. Karel Roberti	1935-36 Belgium, France	IX. Antonio V. Funes	1939 Cuba
V. Stephen H. Smith	1935-37 India, Sikkim	X. Miscellaneous	1948-59 United States

Friedrich Schmiedl (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. Schmiedl 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.



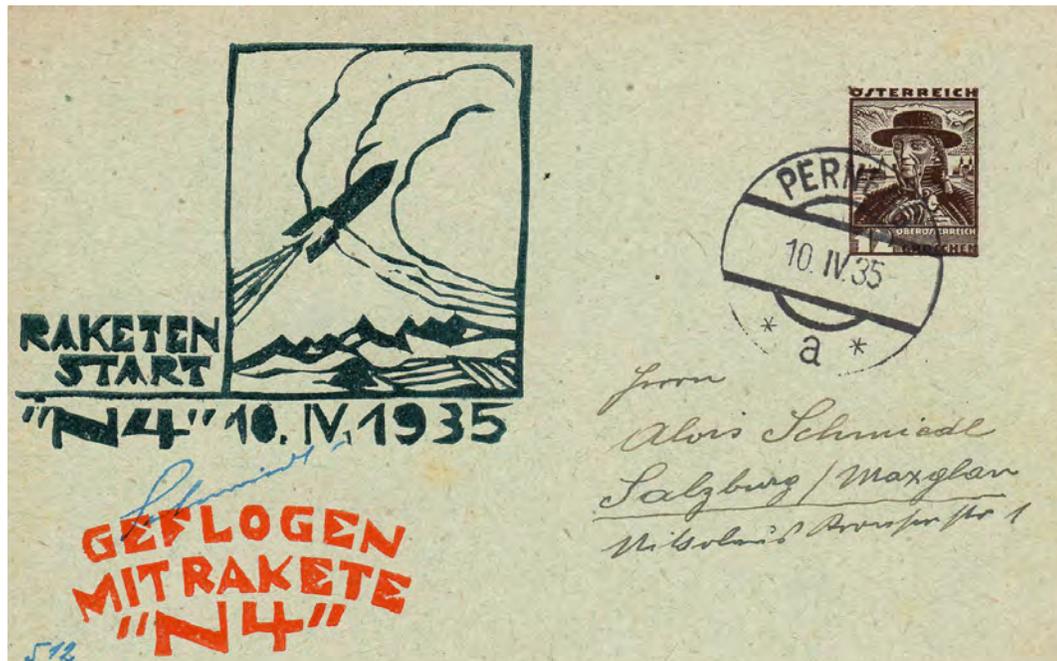
One of 200 envelopes to reach the stratosphere by balloon when the attached rocket fired. Without onboard tracking it took 3 months before the remains were returned to Austria from Belgium.



One of 383 covers flown on a test for rocket catapult mail. In the early 1930s ocean-going ships were experimenting with ship to shore aircraft to improve mail delivery by a day. Schmiedl believed rockets could be a cost effective alternative.



The first of the final series that Schmiedl launched before the outbreak of WWII. N1 and N2 were launched at Edelschrott with 450 covers carried on N1. A total of 480 cards were flown that day on N2.



N3, N4, and N5 were fired at Pernegg in April 1935. N4 consisted of 600 cards with 150 of four types. Type D had a brown 12 groschen stamp on grey-green paper. 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.

Alan Young was a Brisbane architect, entrepreneurial publisher, and President of the Queensland Air Mail Society. After reading aerophilatelic journals about earlier efforts, he corresponded with Friedrich Schmiedl, 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 to 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.

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.



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.



Of his 9 flights the January 28, 1934 is the most commonly seen. What Zucker lacked in aeronautical know how was made up in philatelic flair. The Cinderella labels, commemorative postmarks and auto-graph make for an attractive envelope.



Herrn Lehrer Erich Beck,
Thälendorf.

Post Rottenbach, Thür. Land.

The same flight sent through the mail. Postmarked at Thale. Examples exist cancelled at Hexentanzplatz where the launch took place. Note the rise of the Nazi Party as evidenced by the rubber stamp in lower left corner.

Gerhard Zucker

Great Britain



Following disappointing flights in Germany Zucker traveled to Great Britain to the International Airpost Exhibition. The flights resulted in explosions and sub-par performance.

Gerhard Zucker

Italy



Instead of returning to Germany following the disappointing attempts at Sussex Downs Zucker travels to Trieste in Italy.

Envelopes were charged 7.5 lire while cards like the one shown here cost collectors 5 lire.

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.



One of 492 envelopes produced for this flight. With launches routinely ending in explosions, it became important to begin with enough covers to end up with sufficient inventory for rocket mail collectors.



Roberti was closely associated with *Nederlandsche Raketten Bouw* (NRB), translated as Dutch Rocket Construction Inc. Actually, 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.



First Belgian rocket mail experiment on the beach of Heystaan-Zee-Duinbergen enjoyed collaboration with the Belgian Post administration.



Roberti attempted this flight in June 1936. 200 covers and 300 cards were on board when the rocket left the launch stand. The rocket exploded destroying a large percentage of the philatelic payload.

The blue Albert Place circle date stamp (CDS) is unlisted.

In a rare flash of success this envelope rocketed near Paris at breakneck speeds.



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) had careers as policeman, dentist, and customs official. He was also described as an aerospace engineer although no evidence of formal training as yet been uncovered. Beginning with a series of 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 the 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 chose instead to destroy his notes.



We rejoice in sending by this

By May 1937 Smith had carried letters, cards, and leaflets in 29 launches. This piece was from the 12th mail carrying flight in 1937.



Stephen Smith

Sikkim



Prior to the modern state of India, His Highness the Maharajah encouraged Smith to fire rockets in Sikkim.

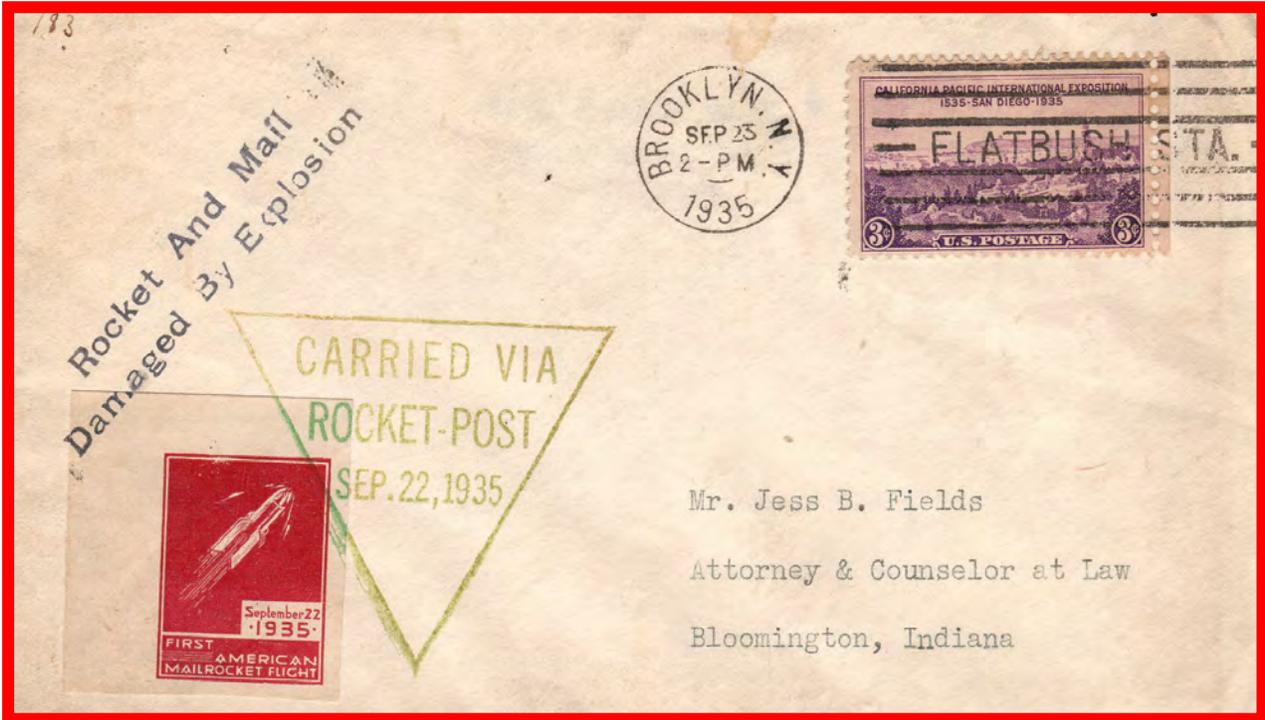
This flight was the first time a parcel was carried by rocket. On examination all 11 items (in addition to 50 envelopes) were intact.

William Sykora

United States

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

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.



Professor Russo

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.

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 launched in June, consisted of 5 rockets fired into Mexico and 5 launched into Texas in return. It was amazing no one got killed.

The American Legion flew 3 experimental flights on 22 June 1936 and a series of five international flights from McAllen, TX. This envelope traveled on one of 5 return flights from Reynosa, Mexico across the Rio Grande back to TX the following day.

The 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 or released for 20 years.



Willy Ley

United States

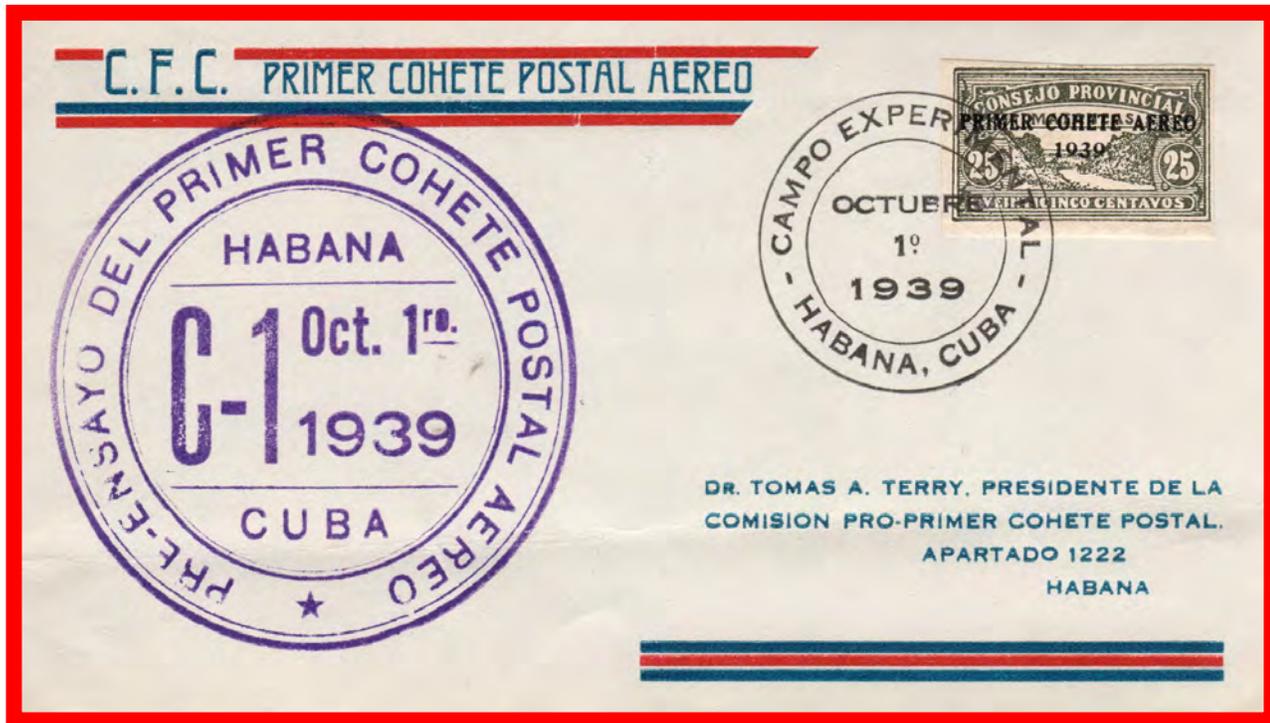
Willy Ley (1906-1969) studied astronomy, physics, zoology and paleontology at the University of Berlin and became interested in spaceflight as a teenager after reading Hermann Oberth's book (*The Rocket into Interplanetary Space*). Ley began corresponding with every known rocket enthusiast in Europe. At the age of 20 he became a science writer and became a founding member of the **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 popular science classics included *Conquest of Space* (1949) with Chesley Bonestell, *Conquest of the Moon* (1953) with Werner 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, 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, conducted on October 1st exploded after traveling a distance of just 12 meters at the Army's Fifth Avenue firing range on the seacoast in 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.

The rocket launched, but quickly lost his balance and buried itself 15 meters from the starting point into the earth.

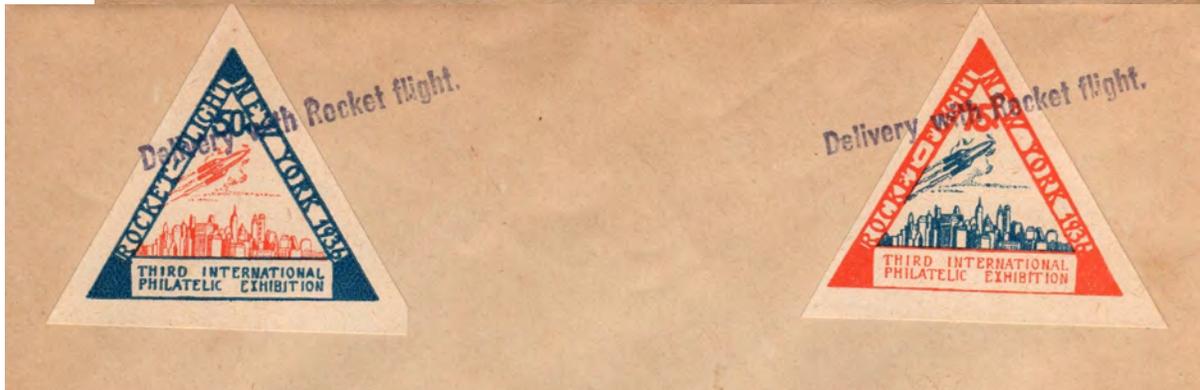
Hopferwieser reports the rocket contained 2581 letters. Kronstein claims only 50 were carried and they cannot be distinguished from the unflown.



On Oct. 15, 1939, the world's first rocket mail stamp was issued in Cuba. 200,000 10 C airmail stamps were overprinted "Experimento del Cohete Postal, Año de 1939". Because of the failed rocket flight, the stamps were withdrawn on Oct. 18, 1939. The remaining copies were destroyed.

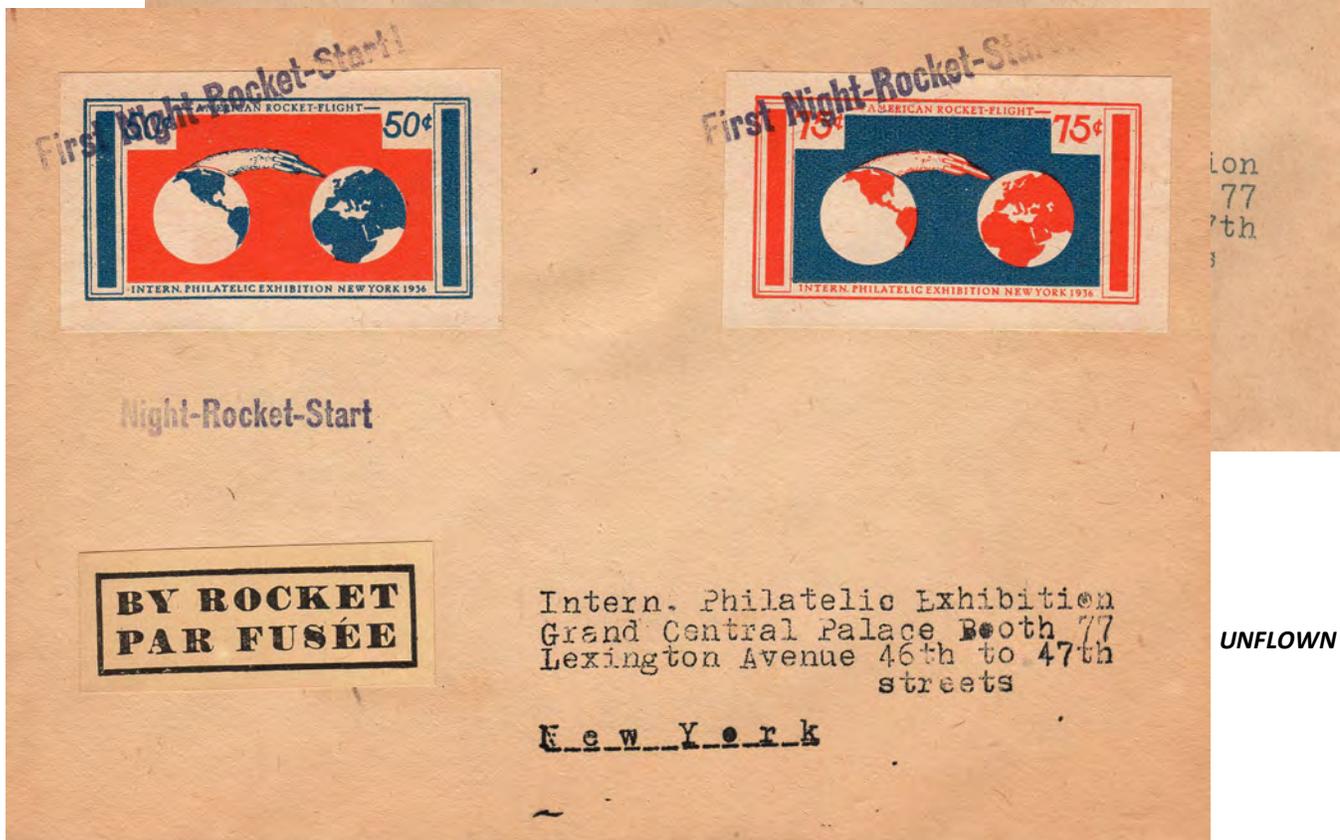
UNFLOWN

Zucker, arrested by the Gestapo under orders from Adolf Hitler, was unable to leave Germany. A reluctant friend named Karl H. Hennin Sr. was recruited to travel to New York in his place.



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Reports about the planned flight vary greatly. One said the Zucker rocket was impounded by US Customs and was not on display in New York. Another claimed that Hennin attempted to obtain a permit to launch but applied too late.

Beginning in 1943 serious amateurs in southern California began designing and launching rockets. In 1949 members launched the first liquid monopropellant rocket and later developed propulsion based on zinc dust and sulfur flour. Vehicles ranged from one to twenty feet in length and produced thrusts up to 10,000 pounds. Rockets consistently reach 10,000 feet in altitude and evaluated advanced instrumentation, payloads, parachute deployment mechanisms and multiple stage rocket concepts. They maintain a 40 acre test site known as the Mojave Test Area (MTA) two and one half hours north of Los Angeles.

The first RRS rocket mail crossed the Colorado River from Winterhaven, CA to Yuma, AZ where the covers were posted. Rocket one was lost in the river while this was one of 300 that travelled on the second vehicle.



Nine months later the Society again carried mail. 4200 pieces were carried. As requested by the Post Office, the rocket label was overprinted, "Not U.S. Postage".

UNFLOWN

One of 100 "Proof" envelopes circulated to the media to show what the envelope would look like.



Following the 200 mile supersonic flight by missile the VIP mail the 3000 letters travelled by more conventional postal conveyance to the addressee.

"Before man reaches the moon," Summerfield was quoted as saying, "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

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.