**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.

**EXHIBIT PLAN:**

| I. Purpose, Scope & Plan | 1928-1963 Rocket Mail | VIII. William S. Sykora | 1935 United States |
| II. Friedrich Schmiedl | 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 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.

A cellophane balloon filled with hydrogen with a corrugated pressure box permitted the launch of a small rocket at an altitude of 18,000 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 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.

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

Sykora Cinderella rocket stamp
The first of the final series that Schmeidl 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 Tilling

Reinhold Tilling (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.
**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 peddle 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.

**Alan Young** was a Brisbane architect, publisher, and President of the Queensland Air Mail Society who 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 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 were 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.

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.

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.

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.
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.

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.

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.
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.

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

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.

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.

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.
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 (A C Roessler (1883-1952))

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.

Willy Ley (1906-1969) Science writer and founding member of Verein fur Raumschiffahrt (VfR), the Society for Space Travel. VfR alumni included; Johannes Winkler (first liquid rocket in Europe), Walter Hohmann (orbital mechanics), Hermann 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 Werner von Braun, and Rockets, Missiles and Space Travel (1957), a non-technical book widely used by US policy makers.

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.
### 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 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.

The rarest Cuban cover with only 16 flown.

### 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.

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 rarest Cuban cover with only 16 flown.
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.