

## **PART IV. Mandarin Flights, 1958 – 1968**

**The New Era – and the Old  
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## The New Era – and the Old

*From CAT Bulletin Vol. 14, No. 9, Sept. Oct. 1961 by Lew Burridge*

CAT has now entered its 16<sup>th</sup> year of operation in the Orient. It can be proud of its past and pleased with the prospects of its future.

Though a modest-sized airline, CAT was the first airline in the Far East to offer regional jet air travel. The fact that Free China was among the very first nations in the world to operate the Convair 880-M, the fastest, newest of all commercial jets is in itself a testimonial to CAT.

Pioneering, however, comes naturally to CAT. The founding obstacles overcome by General Chennault and Whiting Willauer in 1946 were but the first of many tests put on an organization that has thrived on challenges and matured in some of the world's toughest competitions.

There were many years during which CAT could not finance the latest in-flight equipment but it could always take pride in operating the best-maintained planes flown by the most experienced crews and offering the finest in passenger service.

Service far beyond its obligations has always been typical of CAT. Its early history was marked by hundreds of flights to beleaguered cities to evacuate refugees long after other transportation had ceased and military operations were an ever-present hazard.

The contribution of CAT to the economic rehabilitation of China was felt in its history when food, clothing, and medical supplies were flown to cities long isolated from surface supplies.

Dwindling livestock herds in the interior of the country were rejuvenated by breeding stock flown in by CAT. Essential raw materials such as cotton, wool, bristles, and tobacco were flown on return flights from the interior to coastal factories thus making possible the continued employment of thousands.

Incidents, when the familiar silver planes bearing the red CAT emblem appeared in the sky to rescue flood victims, evacuate emergency medical cases, or deliver life-saving food and medical supplies, were too numerous to relate.

While aiding others CAT also had to overcome its contributions as military conquest forced the fledging airline from the mainland with the loss of much of its material resources.

During the Korean conflict, CAT rendered immediate and invaluable aid to the United Nations forces in terms of airlift capacity and essential aircraft maintenance support.

CAT's long road of progress has seen it span the globe with its charter flights efficiently transporting every possible load from symphony orchestras to Korean orphans. Its planes have seen nearly the whole animal kingdom aboard at some time or another as it hauled everything from fingering fish to elephants.

CAT's perfect safety record has created confidence in air transportation that reflects great credit to the East as well as to Free China and CAT itself.

The addition of the Convair 880-M jet on CAT routes is the culmination of many years' determined group of men to spare nothing in excelling in their chosen field.

This new CAT capability was welcomed by those in the medical field who can observe from past performance assurance of even greater CAT service in the future.

## The Mandarin Jet is Here!

*Extract from CAT Bulletin No. 14, No. 5, 6 May – June 1961*

"The Mandarin Jet," which Civil Air Transport proudly presents in the Orient, is a flying world of "tomorrows" blended with -the rich and colorful "yesterdays" of CAT's heritage of old China.



It's more than a jet! It's unique!

The 92-passenger (as configured by CAT) "Mandarin Jet" Convair 880-M is the first of its kind, a brand-new second-generation jet airliner which, at once is the fastest jetliner in service in the world and perhaps the most unusual aircraft in interior décor ever built. "The Mandarin Jet" Convair 880-M is a flying Oriental palace that will cruise at speeds up to 619 miles per hour and bring the seven exotic and exciting countries served by CAT in the Orient only minutes apart.

Within its first week of operation, CAT's "Mandarin Jet" is expected to set flight records throughout the Orient. (The 880 holds most of the U.S. speed records). Sample flying times on CAT's Mandarin routes: Okinawa-Tokyo, 99 minutes; Seoul- Tokyo, 84 minutes; Taipei-Okinawa, 44 minutes; Hong Kong-Taipei, 59 minutes; Hong Kong-Bangkok, 129 minutes; Taipei-Tokyo, 144 minutes.

But CAT executives know that flying will always be more than just speed. Therefore, every effort has been made to make sure that CAT's reputation for offering the best in service, comfort, and dependability is more than equaled in "The Mandarin Jet," which will enable our old travelers -- and new alike -- to travel the fascinating

Orient on the 30-minute travel hour.

## The Beginning

"The Mandarin Jet" became a distinct gleam in the eyes of CAT executives more than two years ago when the first contract with General Dynamics Corporation, Convair Division, was signed on May 14, 1959. The first model ordered was the 880, Model 31. Before this model could be manufactured other models more suitable to the requirements of the interested carriers were developed. CAT re-ordered one of these models, the 880-M, in March of 1960.

CAT had expected to take delivery of "The Mandarin Jet" in December 1960, but the Convair plant ran into production delays. It was difficult waiting. But CAT is convinced that the new model was worth waiting for.

The "M" in the 880-M stands for "modified." How does the 880-M differ from the original 880? Well, it is the first model to have additional fuel tanks, increasing the range of "The Mandarin Jet" to 3,400 nautical miles, with reserves. The 880-M has been equipped with high lift services to increase lift for quicker takeoffs and permit lower landing speeds thus permitting the utilization of shorter runways.

"The Mandarin Jet" is powered by four General Electric CJ-80S.3B engines which have a higher thrust ratio than early type 3 engines -- each with 11,650 pounds of thrust at sea level. In addition, brake capacity has been increased enabling the aircraft to find shorter and adding a safety factor.

The original 880 is quite an aircraft in itself. Convair, with this model, pioneered in "fail safe" design throughout. Among the most important features of this model was the introduction of the Scotch weld process of sealing the integral wing fuel tanks, in addition to the conventional riveting, climaxing 23 years of research in the prevention of leakage. And not only does the Scotch weld prevent leakage, it actually greatly strengthens the wing itself.

The General Electric engines are equipped with reverse thrust devices that convert thrust into braking power for easier and safer landings.

The original 880 proved itself immediately with its ease of handling and its speed which quickly ran up many new flight records.

The swept-back wings of "The Mandarin Jet" measure 120 feet, which interestingly enough, is exactly the distance of the Wright Brothers' first powered flight at Kitty Hawk, North Carolina, on December 17, 1903. From its radar dome to the empennage (tail), the aircraft measures 129½ feet, more than a third of the length of a city block. The tail stands more than 37 feet off the ground. That is greater than the height of a three-story building.

"The Mandarin Jet" has a maximum takeoff weight of 191,000 pounds; it can fly above the weather with perfect ease and comfort with a ceiling of 41,000 feet. It can operate from medium-range airfields with a takeoff distance of under 6,000 feet and a landing distance of only 4,860 feet.

"The Mandarin Jet" is equipped with the latest in navigational and safety aids including dual VHF and HF communications systems, dual VOR and ADF radio navigation aids, instrument landing system, all-weather and terrain mapping, dual installations of the new Doppler radar navigational system, (a revolutionary navigation system which is completely airborne and requires no ground aids), Sperry SP30 automatic pilot system, and a passenger oxygen system that is activated automatically if needed.

An extra thick skin (up to 1/8 inch thick) and special soundproofing have made "The Mandarin Jet" whisper quiet. The sound suppressor on the 880 at the exit portion of the exhaust section resembles the petals of a daisy clustered around a center spike. This configuration provides rapid mixing of the exhaust gases with the surrounding air, thus reducing the noise level. Once the doors have closed, you're in a quiet, new world.

The great, sweeping plane will be painted on the exterior with CAT's traditional colors of ecru and silver, and gold with the lucky, five-toed dragon on the forward fuselage just aft of the radome. As the

flag carrier for the Republic of China, the red, blue, and white flag of China will be emblazoned high on the tail.

## Through the Moon Gates

But as great as the performance of “The Mandarin Jet,” as sleek as it looks as it whooshes skyward – going “straight upstairs” as the pilots put it – the interior of the aircraft is the delight and pride of CAT. One step through the door – as the authentically styled moon gates of ancient China come into sight – will show you why...



So come with us. You immediately feel the lushness of the thick carpets as you step in the door of “The Mandarin Jet.” The predominant color is gold; the deep-cushioned seats are rich Chinese black highlighted with silver and gold. There are two moon gates; a running paneled picture history of old Confucius’ travels. Also seen in the decorations are the Phoenix bird; the Chinese dragon; Chinese lion-knobs; and Chinese characters for long life and happy journeys. The lights are soft and indirect; and in the background is soft music. There are four Nordskog food buffets custom designed to meet CAT’s need for many meals in a few minutes and treated in cinnabar, monel, and black.



The pressurization and air conditioning system of the Convair 880-M provides real "living room" comfort. Regardless of the temperature outside, passengers will be assured of 75 degrees of comfort in flight and a maximum of 80 degrees on the ground. At 20,000 feet, the passengers enjoy sea-level comfort; at 40,000 feet, cabin altitude pressure will only be 8,000 feet. The Convair high-capacity dual air conditioning system delivers a complete change of air every two and one-half minutes. (And how many offices can equal that?)

Among the hundreds of safety devices aboard "The Mandarin Jet" is an automatic oxygen system. Passenger masks are stowed overhead behind small panels – one mask for each traveler regardless of the seating configuration. Two outlets are provided in each lavatory and one at each attendant station. If the cabin pressure drops below a specified altitude level the system is activated automatically; when this happens the panel holding the masks drops to a few inches above and forward of the passengers' heads. To use, the mask is pulled to the passenger's face, opening a rotary valve allowing oxygen to flow through the masks. When the mask is released the rotary valve automatically closes, preventing loss of oxygen into the cabin.

In addition to the 92 passengers, "The Mandarin Jet" initially will carry a crew of 9; captain and pilot, co-pilot, systems operator, and 6 stewardesses and flight attendants.



So all aboard...for the fastest, plushest flight in the Orient!

## CAT's Veteran Pilots

*From CAT Bulletin Vol. 14, No. 5, 6 May, Jun. '61*

The seven pilots chosen as first and second pilots of CAT's "Mandarin Jet" all were among the original pilots of the airline which was founded on the Chinese mainland nearly 15 years ago.

Their average age is 39.7 years. Their total hours of commercial flying time is close to 100,000 hours or nearly eleven years actually in the air.

They are: Felix Smith, Waukesha, Wis., Douglas H. Smith, Brownsville, Tex., Harry B. Cockrell, Charleston, W. Va., Stuart E. Dew, Hamburg, Ark., Weldon D. Bigony, Big Spring, Tex., Paul R. Holden, Greenleaf, Kans., and David G. Davenport of Lawrenceburg, Ky.

The operating crew is completed by four veteran pilots who as systems operators will operate the Convair 880-M's sophisticated systems controls. They are Y. F. Lam, 42; J. Tang, 40; S. Pan, 38---all from Kwangtung Province; and T. S. Wang, 39 from Kiangsu Province.

All have been through extensive ground school training in Taipei where Convair instructors pronounced them among the top "students" they had ever encountered. Ground school was followed by extensive flight training at the Convair plant in San Diego under the experienced and expert hands of Convair's test pilots. Each of the pilots received at least the minimum jet training time currently prescribed as required by the USFAA and each of the captains who will fly as the first pilot earned not only his Convair 880 jet type rating issued by the CAA of China but as well his similar rating issued by the United States Federal Aviation Agency.

The flight crew training program was set up under the direction of Robert E. Rousselot, Vice President of Operations. Captain Rousselot himself is one of the original CAT pilots and a 39-year-old native of Joplin, Mo. The program was carried out by Roy Watts, Manager, Operations Training.

All of them are part of the colorful crew that flew anything anywhere at anytime in the turbulent postwar years on the Chinese mainland. But they're

solid, family men now -- and naturally among the more mature and experienced pilots in the Orient.

Typical of today's pilots is Captain Cockrell, with a record of more than 11,000 flying hours behind him, who is the father of three sons. His two oldest boys, Bryan, 14, and Jere, 12, are star baseball players in the Taipei " Little League." Harry, 11, shows great promise.

Captain Holden, and his wife, Edie, have balanced the population picture with three daughters: Deborah, 5, Kristen, 4, and Kim who is nearly 3; and just recently their first son was born. The Holden's are boating enthusiasts, being one-quarter owners of a newly launched 36-foot power cruiser. Paul has more than 13,000 hours in the air.

Captain Bigony, who has nearly 12,000 flying hours to his credit, is the father of seven-year-old twins, Bruce and Vicky, and, another son, Mark, 9. Vicky has turned into a champion "speller" in her school; the boys are active in sports. "Big" himself is one of CAT's best golfers.

Captain Davenport. and his platinum blonde wife, Nancy, are the parents of two sons and a daughter; David, nearly 6, Lizanne, nearly 5, and Philip, who is 2. Captain "Dave" is a do-it-yourself man around the house. Dave has flown nearly 15,000 hours.

Y. F. Lam is a commercial pilot with more than 11,000 hours of flying over a 'period of 15 years; J. Tang has nearly 14,000 hours of commercial flying and holds a Chinese CAA Commercial pilot license with an instrument rating; S. Pan is a former Chinese Air Force pilot and has nearly 10,000 hours of flying; T. S. Wang also was trained in Chinese Air Force flying school and has nearly 8,000 flying hours. All have splendid accident-free safety records.

In the eyes of all of them you can see a sign of wistfulness when talk turns to the "old days," but it flashes away in a minute, or two. There's just too much to be done today to think for long about the colorful "yesterdays."

# CAT's Chinese Pilots

*Recollections of a CAT Senior First Officer's Son*

by *Wensen Chu, Ph.D.*

## Chinese Pilots

The CAT Chinese pilots referred to in this article are the former Republic of China Air Force (ROCAF) pilots who joined CAT on the Chinese Mainland after the 1931-45 Sino-Japanese War (the War) or in Taiwan after the Chinese Civil War (1945-49). Some of the pilots were granted long-term leaves from the ROCAF after the two wars to join CAT (and other airlines, namely Central Air Transport Company or CATC and China National Aviation Corporation or CNAC) with privileged connections. Some walked away from ROCAF to join CAT and other airlines during the chaotic time that the Republic of China (ROC) government was too busy trying to re-establish itself after the War, and immediately thereafter to stop the Chinese Communists. Regardless of how they got there, all the Chinese pilots had to pass rigorous physical check-ups and flight tests by senior American pilots before they entered CAT.

My father, Charlie C. Chu, a P-40 pilot in the 14<sup>th</sup> Air Force's Chinese American Composite Wing's Fifth Fighter Group during the War and flight instructor at the ROC Air Force Academy from 1948 to 1951, joined CAT as a first officer in May 1951 and resigned as a senior first officer from Air Asia (the successor of CAT after 1968) in May 1969.

## The CAT Chinese Pilots

The ROC Air Force Academy recognizes its graduates by sequential numbers of the graduating classes, which run from the very First Class in the early 1930s to the low One-Hundredth in the present day. During the Sino-Japanese War, qualified cadets from the Twelfth to the Twenty-fourth Classes were sent to the United States in detachments for advanced fighter or bomber combat training in various US. Army Air Corps bases. Those who made it back alive (close to 50 cadets were killed in the U.S. bases) all went through rigorous flight training and possessed basic English language skills. Most of

them had seen combat actions against either the Japanese or the Chinese Communist forces between 1943 and 1949.

Of the CAT's Chinese pilots that I still recall, Captain K. Chiu 邱光石, Eddie S.L. Tong 董世良, S. C.W. Pan 潘超文, and my father Charlie C. Chu 朱傑 were graduates of ROC Air Force Academy's 15<sup>th</sup> Class. M.H. Kung 龔慕韓 and T.S. Wang 王忠深 were of the 10<sup>th</sup> and 11<sup>th</sup> Classes respectively. W.W. Yu 郁文蔚 was a graduate of the 16<sup>th</sup>, Stanley R. Sun 孫永華 and T.C. Hwoo 胡侗清 were graduates of the 17<sup>th</sup>, and Captain Benji Lin 林宏基 was a graduate of the 24<sup>th</sup> Class.

Kaiser Chiu and Benji Lin were the only two Chinese captains in CAT's operations in Taiwan, who commanded mainly DC-3, C-46, and DC-4. There were at least five other Chinese pilots from ROCAF who I heard from my parents but barely knew. I am not certain of the proper spellings of their English names either. They were Y.C. Yu 于寅存 (7<sup>th</sup> Class, based mostly in Tachikawa), Y.H. Su 蘇英海 (12<sup>th</sup> Class), C.T. Chou 周欽德 (13<sup>th</sup> Class), L.C. Chao 趙連景 (16<sup>th</sup> Class, killed in the streets of Bangkok), and C. Chao 趙欽 (19<sup>th</sup> Class).



Pre-flight briefing, Capt. Kaiser Chiu, far left;  
Capt. Bob Rouselott, far right.

S.L. Tong, K. Chiu, S. Pan, and my father C. Chu were ROC Air Force Academy classmates and wartime buddies, so our families were close to one another. Wives' mahjong games and family gatherings were common before we lost S.L. Tong. Benji Lin respected my father's wartime near-fatal injury

(that burnt half of his face), they became a natural pair in the cockpit and loved to fly together. S.R. Sun was based in Japan and remained with Air America to the end. His straightforward character was very much liked by my parents, they remained connected throughout their lives. W.W. Yu, C.T. Chou, and C. Chao joined CAT after distinguished careers in ROCAF's "Black Bat" Reconnaissance Squadron, each with hundreds of combined hours on P-38, C-46, C-47, B-26, B-17, and P2V. T.S. Wang and S. Pan were the only two that flew on the right seats of the Convair 880 and Boeing 727 Super Mandarin jets. T.C. Hwoo left CAT and founded Far Eastern Air Transport (FAT) in 1957, which is now defunct. W.W. Yu, S. Pan, and Charlie Chu joined China Airlines in 1969 and served as captains on DC-4, Boeing 727, and Boeing 707 respectively until their mandatory retirement age of 60.



**From left, Capt. Benji Lin, my father, Charlie Chu, ROCAF fighter pilots Y.L. Duan and S. Pan**

### **"Mixed missions"**

Most CAT pilots were rotated around various types of flight assignments, which included passenger services (CAT was the only commercial airline in Taiwan until the mid-1960s), passenger and cargo charters, military support, and covert operations with an assortment of aircraft.

### **Domestic**

CAT's domestic passenger services included: (1) round-the-island flight that departed Taipei Songshan daily at 0900, stopped at Taichung, Tainan, Makung, on the Penghu Islands in the Taiwan Strait), returned to Taichung, then Taipei around 1730; (2) Taipei-Hualien (on the east coast of Taiwan) roundtrip services, and (3) Taipei-Makung flights; mostly with DC-3

and C-46, and occasionally with DC-4. The multiple takeoffs and landings with the old WWII surplus planes in the round-the-island flights were physically strenuous, and the pilots' and the mechanics' skills and experiences to react and deal with multiple mechanical difficulties in the air and on the ground were essential to the perfect safety record of CAT from the early 1950s to mid-1960s.

As a token fringe benefit, cockpit crew's families were granted limited free rides on CAT's domestic and international flights each year. Mom and Dad would take two of us at a time on such flights to Taichung, Hualien, and Hong Kong for vacation. The real treat on those flights was, with the captains' permission, we got to visit the cockpit before take-off or during the flight. I was once allowed to observe in the jump seat the entire 35-minute flight from Taipei to Hualien. I still remember the C-46's engine start sequence, the preflight check, the deafening sound of the engine test run before take-off, the sighting of the runway from the cockpit, and the perfect landing by Captain Kaiser Chiu.

## International

CAT's international flights covered most East Asia cities of Seoul, Tokyo, Okinawa, Manila, Hong Kong, and Bangkok, with DC-3, C-46, DC-4, DC-6B, and later Convair 880 and Boeing 727 jets. Due perhaps to his meticulous and cautious attitude, my dad was some CAT captains' most preferred first officer. He was among the first group of officers selected to fly the DC-6B in the late 50's but never had his chances on the 880 and 727. I remember Dad always had his CAT uniforms and personal gear ready in an open suitcase even when he was off or on standby, and the skin of his suitcases was covered with stickers of all the Asian hotels that the CAT crew stayed in.

I was only three years old when I took my first trip to Hong Kong, and I hardly remember any details of the trip. The second trip I made with my mother and kid brother on the DC-6B Mandarin carrier from Taipei to Hong Kong in the summer of 1966 *was unforgettable*.



**Flight Attendants Boarding DC-6B**

The flight was commanded by Captain Thompson (forgot his first name) with my dad as the first officer. After I thoroughly enjoyed the breakfast of mushroom and cheese omelet, fresh orange juice, and fruit plate served in the first class (in the aft section of the plane) by some of the most beautiful flight attendants I have ever seen, I was invited by Captain Thompson to visit the cockpit. Captain Thompson personally explained to me the altimeter and the heading of our plane and what other instruments were for, then my father pointed to me through the right window the city of Shantou (Santow) on the Chinese coastline (this was 1966 and the two sides of the Taiwan Strait were seriously at war!). Years later when I needed to fly to Hong Kong for business, I always asked for seats on the right side of the plane, hoping to re-capture the sight of Shantou and the image with my dad in his DC-6B cockpit.



**My Father at the right seat of DC-6B**

## **Charter**

CAT also offered chartered cargo and passenger services to domestic and international customers. One of my dad's proudest records in CAT was when he served as one of the copilots for a month-long charter by His Royal Highness, Sheikh Prince Abdullah Al-Mubarak of Kuwait in September 1953.

The charter took His Royal Highness and the CAT crew throughout most major Middle East cities (further details in CAT Bulletin, Vol. VI, No.9, September 1953, pp.1). His Royal Highness gave each member of the CAT crew a gift at the end of the charter, my dad's royal gift was a Swiss-made watch with tiny diamonds in the back and 12 embedded rubies for each of the hour marks.



### **My father with C-46 at Bagdad Airport**

The longest charter my father flew was a roundtrip between Taipei via one or two stops in Japan, the Aleutians or lower Alaska, Seattle, Minneapolis, and Norfolk, Virginia with a DC-4. Compared to modern-day instruments and cabin comfort, it must have been quite a journey for everyone in the cockpit and the cabin.

One particular CAT charter flight by some sea merchant company from Taipei to Australia in June 1964 was a fateful one for our family. Dad was originally scheduled (most likely at the request of his buddy Captain Benji Lin, they loved to fly together) to copilot a round-the-island flight (CT106) which was partially pre-booked by a group of Asia's film industries' leaders (including Mr. Loke Wan Tho, a Malaysian billionaire movie producer and a staunch supporter of the ROC government) on June 20, 1964. Somehow the Operations Department (OD) re-assigned my dad as the copilot of the Australia charter which departed a few days before June 20. The first officer on standby, M.H. Kung, was assigned to assist Captain Lin in flying the ill-fated CT106, which tragically crashed shortly after take-off from Taichung on its way back to Taipei, due to an unsuccessful hijack attempt by two Chinese

Communist agents who had at least one loaded .45 caliber pistol (there were no X-ray scanning at the airport and cockpit doors were rarely locked). Benji Lin and M.H. Kung refused the hijackers' demand to turn the plane toward mainland China and were both shot and killed in the cockpit resulting in the crash of the B-908 C-46 that killed everyone onboard. My father would have also refused the hijackers' demand and fought with Captain Lin if he had been in the right seat on that flight. But if he was in the right seat and fought the hijackers, the fate of my family would have been entirely different and I would not be able to write this article now.



**C-46 B-908 that crashed on Jun. 20, 1964**

My father completed 18 years with CAT. Immediately below is a letter from Bob Rouselot, Vice President – Operations, at my father's ten-year service mark. The next letter from Capt. Don Teeters, Director of Flying Division, Air Asia Company Limited details the number of flight hours my father flew with CAT as First Officer in the various aircraft listed.

# CIVIL AIR TRANSPORT

HEAD OFFICE  
46 CHUNG SHAN ROAD, NORTH, 2ND SECTION  
TAIPEI, TAIWAN  
CABLE ADDRESS "CLAULT TAIPEI"

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10 May 1962

First Officer Charlie Chu  
Civil Air Transport  
Taipei, Taiwan

Dear Charlie:

I have been holding your Company-issued Ten Year Service Pin with the intention of presenting it to you at an opportune time when you were in flight crew uniform at the airport, so that we could get a picture taken of you with the DC-6B in the background, however, since I thus far have not fulfilled this intent, I am taking this opportunity to forward to you your Ten Year Service Pin so that you will have it without further delay.

In presenting this Pin to you, I wish to extend to you my warmest compliments for a job well done!

With best wishes and warmest personal regards.

Sincerely yours,

*R. E. Rousselot*  
R. E. Rousselot  
Vice President-Operations

Encl: as stated

SD-17-1A R2

**Letter on Ten-Year Service Pin**

**AIR ASIA COMPANY LIMITED**  
108 Chung Shan N. Road, Section 2, Taipei, Taiwan

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9 May 1969

TO WHOM IT MAY CONCERN:

This is to certify that Mr. Charlie C. Chu has flown in the capacity of First Officer a total of 14,088:19 hours with this Company. His flight time breakdown is listed as following:

DC6B	2488:31
DC4	2955:34
C46	6183:42
C47	2134:03
10-2	12:27
PBY	299:32
Piper	14:30

*D. E. Teeters*  
D. E. Teeters  
Director  
Flying Division



**CAT Headquarters Building, Taipei**

Wensen (also Wen-sen or Wen Sen) Chu is the second son of Charlie C. Chu. He received his BS degree in agriculture engineering from Chung Hsing University in 1973, and MS and Ph.D. degrees in water resources engineering and applied mathematics from UCLA in 1976 and 1979 respectively. After a distinguished teaching and research career at California's Humboldt State University (now Humboldt Polytechnic University) and the University of Washington (with tenure) from 1979 to 1991, he returned to Taiwan and started his international water and environmental engineering consulting career over the last 33 years.

## 20 Years of CAT Years

*From CAT Bulletin Vol. 19, No. 5 1966*

Twenty years ago on October 25<sup>th</sup> CAT came into existence!

CAT started from somewhat humble beginnings and pulled itself up to develop from a group, originally formed to provide non-scheduled airlift for relief supplies to famine and poverty-stricken areas of the Chinese mainland, to a prominent scheduled Regional Far Eastern carrier of the Republic of China.

CAT quickly overcame most of the disorganization caused by evacuation from the mainland and settled down into a smooth-running, well-organized unit. During the first ten years, CAT gained the confidence of the traveling public and established itself with a noteworthy reputation for its punctuality, reliability, and service. Although CAT became more widely known for its scheduled regional air services, charter work has continued through the years to play an important role in its operations.

High standards -- the keystone to the continued success and progress of any airline -- were established early in CAT's development as a major objective. For its accomplishments. CAT was awarded a certificate for flight safety from the Chinese Ministry of Communications -- the first of its kind the Chinese Government had ever awarded to any civil airline under its jurisdiction.

During the second decade of its history, CAT -- now a well-established and well-known scheduled regional air carrier -- recognized the need for energetic programs to ensure progressive development and had to find ways and means of constantly improving equipment, its service, advertising campaigns, and the hundred and one aspects which determine the rating of an airline. An important step taken in this direction was to update its aircraft fleet with -- "The Mandarin Jet" -- a Convair-880M with specially designed Chinese palatial interior decor.

Thus, when CAT implemented "The Mandarin Jet" services, it was the first airline to operate pure jet scheduled passenger service on regional routes in the Far East.

We would be remiss if we did not make mention of the noteworthy progress made on Taiwan during these past twenty years. Immediately after World War II industry in Taiwan was at a virtual stand-still and agricultural production was at a low ebb. Progressive development/improvement programs were implemented and good use was made of economic assistance from abroad.

Today Taiwan has one of the highest standards of living in the Far East and a rapidly growing economy. It is becoming increasingly popular with tourists and of increasing interest to foreign investors.

While CAT has benefited and has been materially assisted by the growing stature of the country it serves, it is no idle boast that CAT has played an active role through the years in contributing to the success of the government. Members of CAT were responsible in part for the government's recognition of the importance and lucre of tourism. CAT personnel were and still are working with members of the Taiwan Visitors Association, striving tirelessly through the years to bring Taiwan into prominence on the world map. Time and again CAT personnel have represented the Republic of China in tourism meetings abroad.

During these ten years, CAT, besides greatly expanding its services and bettering its equipment, has been very active in civic and promotional activities. One of CAT's biggest and most successful projects is the promotion of golf, which has led to annual golf tournaments sponsored by CAT. These tournaments, open to amateurs from countries all over the world have proven a useful tool in promoting the area through golf.

CAT has been unstinting in its support of golfers from Taiwan, who have competed in foreign lands and have brought honor and distinction to the land of their origin.

Innumerable trophies and prizes have been donated by CAT to civic organizations in the different countries CAT serves. No effort has been neglected to promote Taiwan and the airline.

It was the men and women of CAT who staged the first fashion show on the island, stimulating active interest in fashions and better living, and at the same time, bringing worldwide acknowledgment to local products.

CAT Is widely known throughout the Far East. An amusing though touching mark of recognition was when we discovered that under "C" in a popular English-Chinese dictionary in Taipei, there was printed the following "CAT -民航公司 (Civil Air Transport)."

So, on the occasion of our twentieth birthday, let us in CAT be proud of past achievements, but call to mind the thoughts expressed by the president in 1956, "In the days ahead imagination and intelligent sales promotion will do much to ensure the continued growth of CAT".

## The End of CAT

*Excerpted with permission from “China Pilot”©1995 by Felix Smith, per  
Junko Smith*

The death of CAT itself followed the loss of a passenger plane between Hong Kong and Taipei. CAT’s president said, “Other airlines crash and lose the airplane. We crash and lose the airline.”

February 1968. It almost didn’t happen. Had the Boeing 727 been fifty feet to the left or thirty feet higher in the darkness and mist, it would have cleared the house, and the farmer who found wide tire tracks in his rice paddy the next morning wouldn’t have known what they were or how they got there. Nor would the pilots have known they were low enough to brush the plane’s wheels through the rice paddy mud before they climbed toward the instrument glide path. But CAT’s luck had run out. The right wing clipped the rooftop, and they crashed into an adjoining farm. Of sixty-three people on board, twenty-one lay dead. Others walked out of the wreckage to hail passing taxis and continue to the airport, where they met relatives who had been waiting and officials who bawled them out for failing to clear customs.

Like many airplane accidents, it was caused by a series of events. One link missing could have broken the chain that led to disaster. There was blame enough to go around: Taipei’s ILs (instrument landing system); its communications antics; a vice president’s indecision; the paltry training of flight engineers in Doole’s cost-cutting policy. But blame was piled on a crewman who accepted it without a murmur.

A code of responsibility merged with Hugh Hicks’ personal honor...

Hicks’ sense of equity extended to management. Sensing an ever-widening gap between the head office and pilots, he told me, “I think I can do some good,” and he agreed to be an assistant chief pilot. Executives had eased his transition to a desk by promising he would fly CAT’s latest acquisition, the Boeing 727, the high-tailed jet with three engines aft. However, he wasn’t in his new job very long when a new vice president of operations – a veteran of American Airlines – moved the chief pilot’s office downtown and declared, “You’re on management’s team. Stop flying.”

Advised of CAT's promise to Hicks, his new boss evaded a decision. He didn't forbid Hicks to fly, but neither did he allow him time to keep proficient. It wouldn't have happened had Rousselot still been in charge...

Flight engineers who operate the airplane innards – its electrical, fuel, hydraulic, and pneumatic systems – are conventionally trained on simulators that duplicate problems a normal airplane can't. But CAT skipped the simulator. It was one of Doole's ways of cutting costs. The B-727 flight engineer trainees continued flying the older planes and caught ground school, piecemeal, in between flights. After approximately eight hours of training on the airplane itself, they took the engineer's seat on passenger flights while an instructor monitored them.

Reminded that an inadequately trained crew member is a burden on the pilot in command, CAT agreed to a compromise. Veteran engineers monitored new ones a while longer.

The flight engineer assigned to the flight, a CAT old-timer, was described by the instructors as "the best of the bunch." Nevertheless, the pilot in command thought it prudent to watch his performance.

Another link in the chain to disaster was the design of the flight director – the most sophisticated instrument on the airplane. In addition to displaying an image of the plane above or below the glide slope, it had a command bar showing the best pitch (angle of the nose) to return the plane to the glide slope and keep it there. But the instrument had a booby trap. If a voltage fluctuation of the ILS ground installation released the command bar from the glide slope, it remained in its last position. Divorced from the influence of the glide slope, its last position could guide the pilot below the slope. The instrument's designers incorporated a "guide slope engaged" light and raw data information – lots of stuff that could be overlooked if the pilot's scan was rusty.

Although the ground installation of the ILS itself was satisfactory by those of us who were weaned on China's primitive airports, pilots of other airlines complained about its reliability. As for voice communications, I called them "Taipei's rain dance." Conventional airports completed the dialogue as early as possible so crews could concentrate on the approach, but half of Taipei's controllers refused to release a plane to the tower until it reported, "Runway in sight."

On that February night, the PIC (pilot in command) was a supervisory pilot and check airman. An excellent pilot with a cool head, he had flown through all our mainland adventures. On this night, he carried a heavy load. It was the flight engineer's first flight without an instructor. The PIC assumed an additional burden. The flight from Hong Kong carried Hicks and Gloria, who had been visiting relatives. It was Hick's chance to brush up his skill. His duties in the chief pilot's office had allowed him but 145 hours in the B-727 seat in the previous eighteen months. The PIC offered him the captain's seat while he rode the jump seat.

The seating changed their status. Although the PIC retained command of the airplane, he also became the check airman, and Hicks became the checkee.

No one will ever know what happened. A voltage fluctuation in the ILS round installation might have disengaged the command bar from the electronic glide slope. Perhaps it emitted an erratic signal. Hick's scan told him the instruments didn't agree. Had he been alone, he would have aborted the approach, but the PIC's silence, which had been interspersed with brief comments, gave Hicks confidence...

Hicks applied power. The plane's wheels stroked rice paddy mud for 517 feet and then climbed through a grove of thin trees.

A prosecutor charged both pilots with criminal negligence and manslaughter...It was the first time in the history of aviation that airline pilots who had crashed were charged with a crime...Eight months later, the criminal court acquitted the pilots.

The Boeing 727 crash didn't kill CAT, but it accelerated its end. Plans had been in the wind to close it down and concentrate on the Air America operation in Southeast Asia.

The Chinese airline was my family. I had attended CAT's birth, grew with it, and watched it die.

The giants were gone. Like all gifted leaders, they didn't have to posture. I heard no stirring speeches or inspiring exhortations to the accompaniment of trumpets.

Chennault at the head office in his plaid duck-hunting shirt. I never heard him raise his voice.

Willauer, the Renaissance man, at the airport in his leather jacket, not afraid to show his shortcomings by copiloting a C-46 on which he had no experience or by murdering the Chinese language while conversing with laborers.

Cox, with his shy smile and mysterious charisma.

Rousselot, the disciplined Marine who ruled with a strong arm yet protected his pilots like a mother hen.

Rosbert, intelligent, unflappable Flying Tiger.

Burridge, with his inner peace. The masculine, will-o'-the wisp who turned problems into fun.

Different as they were, they were the same. They had a talent for leadership that sprang from fidelity to some deep conviction, plus an inner honesty that was unmistakable. Shining through it all was a respect for those they led.

And how would we ever forget Buol, our cocky Marine hero, who, unbowed, stole yarn and knitted an American flag under the noses of his captors? Or Snoddy, Schwartz, Earthquake, Buford, Miss Cho, and all the rest?

It didn't seem right. One day the airline flew, the next day it didn't. CAT had been such a cornucopia of colorful characters and events. I wanted a raucous Chinese funeral to celebrate its life.