

## **The beginning of meteorological exchange across the Taiwan Strait – Recollection of an ice-breaking event two decades ago**

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**Before the 1970s**, there was severe hostility between the two sides of the Taiwan Strait. Relations gradually thawed during the 1980s, with academic exchanges coming to the fore. In many scientific disciplines, such as physics and chemistry, contact between scientists from the two sides usually started at international conferences, followed by jointly sponsored scientific workshops held overseas. However, meteorological societies were closely associated with government weather services, and Taiwanese government staff was strictly prohibited against contacting anyone from the Mainland. Thus, meteorology was the only scientific arena unable to develop cross-strait exchange, despite its uniquely direct and practical benefits to people's daily livelihoods.

**In late 1987**, **Prof. Tao Shiyan (陶詩言)** and **Prof. Ding Yihui (丁一匯)** of the Institute of Atmospheric Physics, Chinese Academy of Sciences (CAS), visited the Hong Kong Observatory (HKO, then 'Royal Observatory, Hong Kong'). They suggested that Hong Kong may be a place to start exchanges between meteorologists from both sides. However, the British Hong Kong government had all along been very averse to any affairs between the two sides of the Strait. A silver lining was the appointment of the first Chinese Director for the Observatory, Mr. Patrick Sham, in anticipation of the return of Hong Kong sovereignty to China. During my visit to Hong Kong in early 1988, Mr. Sham and Mr. Lam Chiu-ying, then Senior Scientific Officer, aware of my involvement in the modernization plan of the Central Weather Bureau (CWB), informed me of Profs. Tao and Ding's suggestion.

The message I brought back to Taiwan caused nothing less than a shock to the conservative political atmosphere then prevailing in Taiwan. Some people positively welcomed the idea while others either had doubts or opposed it. The first to indicate support was **Prof. Tsay Ching-yen (蔡清彥)**, head of National Taiwan University's Department of Atmospheric Sciences. The Director General of CWB **Mr. Wu Tsung-yao (吳宗堯)**, as a government official, could only remain silent in public,

although privately he was glad to see the idea taking off.

In 1979, President Chiang Ching-kuo (蔣經國) issued the official directive of “three No’s” policy for participants of international conferences or activities in which people from the Mainland also participated: *No contact*, *No negotiation*, and *No compromise*. As encounters with Mainland counterparts in international scientific conferences became inevitable, the three No’s policy had caused too many awkward moments for Taiwan scientists. Mr. Wang Chi-wu (王紀五), National Science Council’s Vice Chairman in charge of international cooperation, tried to modify the directive to another rather amusing “three No’s” for scientists in international meetings only: *No contact*, *No handshake*, and *No avoidance*. Namely, Taiwan scientists should not have contact with mainland counterparts, yet they should not been seen as withdrawing. This of course created even more awkward situations so that most people ignored at least one of the three.

**The main worry** of many hesitant colleagues from universities and the CWB was that they might be labeled with a ‘red hat’ (meaning a communist sympathizer), if they participated in a meteorology conference that was named a cross-strait event, which could not provide a suitable cover as an international meeting could. To allay their concerns, I explored with Prof. Tsay the possibility of organizing Chinese-speaking academics in the United States to form a delegation under the banner of the American Meteorological Society (AMS), which Professor Tsay said would be very helpful. So I got in touch with **Dr. William Lau Ka-Ming (劉家銘)** of NASA’s Goddard Laboratory for Atmospheric Sciences. Together we met with Dr. Richard Hallgren, Executive Director of AMS and former Director of the National Weather Service. He was a good friend of **Prof. Zou Jingmen (鄒競蒙)**, Administrator of the State Meteorological Administration (now the China Meteorological Administration), through the US-China Atmospheric Sciences Cooperation Agreement, the first scientific cooperation agreement entered by the two countries after the establishment of diplomatic relationships. Dr. Hallgren was supportive of the meeting, but indicated that he would need a night to think about it as the idea was quite extraordinary. Not surprisingly, the next day, in line with his bureaucratic background and in view of the unknown risks and uncertainties associated with the idea, Dr. Hallgren made the safe choice of leaving AMS out for the time being.

**The next American scientific leader** who might be able to assist that came to my mind was **Dr. Richard Anthes**, President of the University Corporation for Atmospheric Research (UCAR). He immediately agreed to help and, furthermore,

entrusted me with the promotion and preparation work on behalf of UCAR. He also assigned **Ms. Karyn Sawyer**, head of UCAR's Joint International Climate Projects/Planning Office (JICP/PO), to be responsible for assistance on relevant logistic and support matters. While Dr. Anthes' enthusiasm had alleviated the concern of the meteorological community in Taiwan, it generated an issue for the Mainland side. To them, the basic principle of "one China" is non-negotiable and must not in any way be perceived as in doubt. From their viewpoint, a conference also attended by a US delegation would be construed as an international meeting, with the possibility of an undesirable allusion to "two Chinas" or "one China, one Taiwan" that would be absolutely unacceptable.

**To solve the problem**, I communicated with Administrator Zou in the course of two US-China Atmospheric Sciences Cooperation Workshops, one in Boulder, Colorado where UCAR is headquartered, and the other in Beijing. I told him that UCAR's presence would help overcome the difficulties of meteorological colleagues from Taiwan in attending the conference and there did not seem to be any possibility for the meeting to take place if it is called a bilateral meeting. Finally it was agreed that the best approach is to identify this conference as a meeting of individual scientists on their personal capacities, and without any kind of official or government status. The conference would be initiated by a preparation committee comprising meteorologists from Taiwan, Mainland, Hong Kong and North America, and that invitation to attend the conference in Hong Kong would come from Mr. Patrick Sham personally. This compromise arose out of a sincere, cooperative spirit to leave out politics, for the good of meteorological communities across the Strait. Entitled "International Conference on East Asia and West Pacific Meteorology and Climate", the meeting was to be conducted in Chinese and supplemented by English, to consider the fact that the majority of scientists working in the region and on its special topics commonly used Chinese. However, the Proceedings of the conference was to be published in English for world-wide dissemination.

**The first preparatory committee meeting** was held at HKO in November 1988, with four attendees each from Taiwan and the Mainland, three from Hong Kong and two from North America. The two-day meeting deliberated on many details, such as:

- a) The organizer is the Preparatory Committee, composed of members taking part strictly on an individual basis (Mr. Sham was the host and uses HKO as the venue).
- b) The cosponsors are UCAR and World Scientific Publishing Company (publisher of the Proceedings).

- c) The participants list was to be nominated by the Preparatory Committee members (from the four places), and the invitation to attend the Conference in Hong Kong on an individual basis was to be issued jointly by Mr. Sham and myself, respectively the chairman and vice-chairman of the Preparatory Committee.
- d) All participants from government institutions across the Strait, such as weather services and oceanographic institutes, would be listed with their street addresses, not their affiliations (e.g. colleagues from CWB would be listed as coming from 64 Gongyuan Road, Taipei; those from CMA would be listed as from 46 Baishiqiao Road, Beijing).
- e) Initial estimate for the number of participants: around 20-plus each from Taiwan and Mainland, 10-plus from Hong Kong, total about 80 including those from North America and other regions.
- f) The conference will be held during 6-8 July 1989.

In Taiwan, the Conference was actively promoted by Prof. Tsay, with support from Director-General Wu in the background. On the Mainland side, in view of the very large number of meteorological personnel and institutions across the vast country, Administrator Zou identified a capable hand in **Mr. Peng Guangyi (彭光宜)**, Secretary-General of the China Meteorological Society, to carry out the liaison and coordination work. After several meetings they were able to nominate experts from various key institutions to attend the Conference. For other regions including the US, we communicated through several networks and attracted experts from such places as Canada and Singapore. Everything seemed to be progressing smoothly, and we all looked forward to the historical event.

**Then came Spring 1989.** The normally peaceful Tiananmen Square was crowded with demonstrating students and other young people, and the situation was becoming more tense with every day in April and May. Administrator Zou was elected President of the World Meteorological Organization (WMO) and had already moved to Geneva. The unsettled situation made me a little concerned; I recall ringing up Prof. Ding, who assured me not to worry and said that there should be no problem as the Conference had been approved at the highest levels.

But the sudden bloodshed at Tiananmen Square on 4 June changed everything. With normal communication channels cut off and information flow becoming chaotic, the situation turned murky. News came that the Chinese Communist Party central leadership and the government had announced the suspension of all external exchanges.

I managed to get in touch with a handful of Mainland academics who had telephones at their homes (that was not common in 1989), including **Prof. Ye Duzheng (葉篤正)** of CAS, **Prof. Chao Jiping (巢紀平)** of the Marine Forecasting Center of the State Oceanic Administration, as well as the heads of several university meteorological departments. The impression given to me was that staff of government institutions, being directly under Party command, would not be able to attend the Conference, while it might still be possible for scientists from academic institutions, particularly those away from Beijing, to go. However, as each day went by such communication became increasingly difficult, and Prof. Ye told me in mid-June that I should not call him anymore. The chance of attendees coming from even Nanjing University and Sun Yat-san (中山) University, where people were more hopeful before and were viewed as the last two institutions that could still send delegates, got slimmer.

Then came one piece of good news, the international press reported an announcement given by the Chinese Vice Premier in charge of science and technology. In a press release to foreign media, the Vice Premier announced that external scientific exchanges would continue. I rang up **Prof. Zhang Jijia (章基嘉)**, Deputy Administrator of CMA, who was acting for Prof. Zou. He said that the Vice Premier's talk did not cover the Conference in Hong Kong because of the latter's special nature. Frustrated, I called Prof. Zou at WMO twice in the same week. Prof. Zou said repeatedly that he had no knowledge of the situation in Beijing and that any decision about the Conference had to come from Prof. Zhang, not him. So I called Mr. Zhang again --- at about 3 a.m. California time. The call lasted till almost daybreak. International calls were expensive those days, and the bill came to several hundred dollars. Mr. Zhang indicated that because of the turbulent conditions in China, he had to abide by instructions from the central government whatever the consequences. I argued that the Conference basically had nothing to do with internal politics in the Mainland, and hoped that the words from the Vice Premier could be taken as the guiding principle. Both he and I stuck to our own views, and the conversation was not very pleasant.

In the United States, some Chinese academics (from Taiwan or Hong Kong) also proposed cancellation of the Conference as a protest against the Tiananmen incident. I tried to convince them that the Conference was one that the Mainland meteorological colleagues all looked forward to, not some meeting dictated by Party authorities. The proposed cancellation would also play into the hands of the conservatives in the Mainland. I thought we should look beyond all the politics, as

cancelling the meeting would not do any good either to the political reform or to cross-strait exchanges and would only let down meteorologists from both sides of the Strait. Most of scientists in the U.S. sided with me in the end.

**Around 20 June**, the Mainland side officially notified UCAR's Ms. Karyn Sawyer that the Conference would be suspended. As a last-ditch attempt, I tried to call Prof. Zou at WMO several times, but he was away from Geneva.

**A few days later**, I embarked on a scheduled visit to Taiwan, ready to break the bad news to Prof. Tsay and our Taiwan colleagues. A flight delay left me stranded for several hours at the San Francisco Airport. Having nothing else to do while waiting at SFO, I rang up Geneva again, only to be told by WMO that Zou was off to Spain for a meeting. However, this time his secretary gave me the phone number of the Spanish hotel where he was staying. Just an hour before boarding, I managed to get hold of him at his hotel. I said, "It has not been easy arranging the first cross-strait exchange like this. Cancelling it would not help relations between the two sides, and may even set the clock back 10 years." After a moment's silence, Zou said "I think you have a point. Alright, let me think about it and see if there is a way out. However, since I am not in Beijing I am afraid I won't be of much help."

**Arriving in Taipei**, I briefed Prof. Tsay and several other professors. Everyone was very disappointed.

**Two days later** came an unexpected telegram from Ms. Sawyer: "Conference resumed, to take place 6 to 8 July as scheduled." This was a big and certainly pleasant surprise! It later transpired that everybody from the Mainland would have their paper presented according to the original program, with the exception of Prof. Ye whose paper abstract would be read by somebody else.

Many friends from the Mainland I met said it must have been a miracle. They asked whether I had flown to Geneva to meet Zou and then accompanied him to Beijing. They also wondered whether I was exhausted after all these trips and negotiations, and they were repeating all sorts of gossip and rumors. I was later told that Prof. Zou had left Spain for Geneva the next day, immediately sought out the Chinese ambassador to the United Nations at Geneva and together they sent an urgent message to Beijing to save the situation. Zou got Beijing's ear by virtue of his relations with the CCP top level and his presidency with WMO. The fact the Conference was permitted made it unprecedented, in that it was the only overseas

event in which Mainland scientists were allowed to attend so soon after the June 4th incident.

**At that time**, many people in Hong Kong felt strongly about the incident, and protestors were demonstrating everywhere with red and white banners. Some said this could be one of the reasons why CCP objected earlier to holding the Conference in Hong Kong, the concern being that the contentious mood there might have an influence on Mainland attendees, who as a result might not want to return home. As the Conference venues were in two locations, one at the Observatory and the other at the University of Hong Kong, attendees had to travel through the intimidating protest banners each day. Nevertheless, the Conference went very well, and people were all very happy. The historical first cross-strait meteorological Conference closed successfully on 8 July, with all Mainland attendees returning home on time.

**The Conference in early July 1989 not only started comprehensive meteorological exchanges across the Strait, it also spawned numerous other developments.** The East Asia and West Pacific Meteorology and Climate Conference was held four times over a period of 11 years. The 2nd Conference was also conducted in Hong Kong in 1992, but not without a hitch before that. This came about after a paper submitted by a Taiwan researcher to a WMO sponsored conference in Europe some years ago. A European professor who chaired the vetting process, unaware of the political sensitivities, accepted his paper and allowed it to be presented at the Conference. Once home, the Taiwan colleague happily took a press interview, and the next day, the press in Taipei had the following headline in bold:

“I broke the CCP embargo and successfully attended a UN meteorological conference.”

After this event, CCP paid special attention to WMO meetings, and shortly thereafter there was another similar event whereby papers were not accepted. This resulted in the Taiwan authors protesting. Also, controls on both sides of the Strait had been tightened up, with constant haggling between the two sides over conference attendees' titles and addresses. Eventually both sides made compromises. Some Taiwan colleagues, seeing only one side of the story voiced severe criticisms in newspapers, for instance citing humiliation when some found out that the CWB's official name was not allowed on paper documents. (No institution name was used by anyone on paper documents). So, while the Mainland had the intention to

scuttle the 1st Conference, it was a boycott of the 2nd by some meteorologists in Taiwan that charged up the atmosphere, as some professors who attended the 1st Conference refused to take part in the 2nd. Nonetheless, **Prof. Chen Tai-jen (陳泰然)**, who had strong reservations about the 1st Conference, not only changed his mind and actively supported the 2<sup>nd</sup>, but also successfully called upon more Taiwan colleagues to attend this time.

**By the time of the 2nd Conference**, Prof. Tsay had become CWB's Director-General. Although because of their official positions both he and Prof. Zou were not members of the delegations at the meeting, they nevertheless indicated that they would be present as observers, so long as the other was there. Even though the "3 No's" policy had been relaxed by then, such a meeting was still politically sensitive. They could only shake hands and act courteously, not converse in public. Yet this was the first time the heads of weather services from the two sides met publicly in a large open meeting organized by the respective meteorological societies. The two of them also have strong loyalty credentials - one being a first-generation meteorologist growing up in Yan'an, the historical home base of the CCP, the other being the first CWB Director-General born and with long family roots in Taiwan. The Taiwan government newspaper the Central Daily News even conducted an exclusive interview with Zou in Hong Kong and reported on it.

**In the second evening** of the 1992 Conference, UCAR's Dr. Anthes and I had a dinner with the two gentlemen at the Hyatt Hotel, and we talked until very late. The friendship that ensued had far-reaching effects. Of these, the most meaningful included a subsequent scientific collaboration, the South China Sea Monsoon Experiment (SCSMEX), which enabled the implementation of a dual-Doppler radar project jointly conducted by NASA of U.S. and the Bureau of Meteorology of Australia, with one radar on the Dongsha Island controlled by the Air Force of Taiwan, and the other on board a Mainland government ocean research vessel, in order to observe and study convective systems over the Taiwan Strait.

**The 3rd Conference** was held in 1996 at the National Central University (NCU) in Zhongli, Taiwan. Shortly before the meeting, incidentally there was the 'missile crisis' over the Taiwan Strait, when the Mainland fired a number of guided missiles with targets very close to the Island. This should have made circumstances tenser and more unpredictable than those of the two meetings before. However, the success of the two previous meetings made the present one smooth sailing, with overwhelming and enthusiastic participation by both sides. The Mainland's

30-member delegation headed by **Prof. Ma Henian (馬鶴年)**, Deputy Administrator of CMA was the first official Mainland group visiting Taiwan after the Taiwan Strait missile crisis.

The series of conferences was concluded in 1999, without any incident for the first time, in Hangzhou. **In the 4th Conference** the Taiwan delegation was led by NCU's Principal, **Liu Chao-han (劉兆漢)**, who was also the President of the Meteorological Society in Taiwan. It was formally attended by CWB Director-General, **Shieh Shinn-liang (謝信良)**, and CMA Administrator, **Wen Kegang (溫克剛)**. So, after 10 years, from the icebreaker in Hong Kong to the alternate hosting of meetings in Taiwan and the Mainland, the Conference series had reached an historical milestone. What followed were large-scale, comprehensive, frequent and continuous meteorological exchanges and co-operation between the two sides, with political concerns pretty much falling by the wayside.

Apart from cross-strait exchange in meteorology, **the friendship between the two meteorological service leaders, Profs. Zou and Tsay**, also generated another positive impact prior to the return of Hong Kong sovereignty to the Mainland. At the time, the Taiwan-Hong Kong civil aviation agreement was made between private airlines, with the Hong Kong side represented by the British-dominated Cathay Pacific Airways. Whether or not the Hong Kong-Taiwan air routes, so vital to Taiwan's economy, could continue (and if so, how) had created considerable uncertainties and anxieties. The reason was that at that time the Taiwan government still operated under the policy of no direct contact with the Mainland. No flights were allowed between the Mainland and Taiwan, not even if an airplane made a stop in a third place, unless the flight number was changed and passengers disembarked and re-boarded the plane. Prof. Tsay got the unlucky task to deal with this challenge, because by that time he was re-assigned to become the Head of Taiwan's Civil Aviation Administration.

**The airline problem would become untenable** should it drag on beyond the 1997 handover. The Minister of Transportation and Communications at the time, Dr. Liu Chao-Shiuan (劉兆玄), one of the new generation of more liberal minded politicians, instructed Dr. Tsay that he could tackle it in whatever ways that worked. There were two issues. The first was how to develop the Taiwan-Macao route to reduce the overall risk in case the Hong Kong route was interrupted, but that approach had its own headache: Air Macau had CAAC (now Air China, the official Mainland carrier) as the major shareholder. The other was that Cathy Pacific frequently claimed behind-the-scene instructions from CCP, preventing them from agreeing to requests

by the Taiwan side. This was a powerful negotiating tactic, since Taiwan had no way to verify the authenticity of any of the claims. Knowing that I often visited Beijing for meetings and research collaboration, Dr. Tsay asked me to seek assistance from Zou, who had just retired, but still had connections in influential circles.

There were wildly diverging views about Zou during his tenure as CMA Administrator. On the one hand, he was considered by many as entrepreneurial and liberal especially with regarding to dealing with outsiders. On the other hand, he was criticized for his autocratic style and rigorous demands on staff. His father, Zou Taofen (鄒韜奮), was chief editor of Lifeweek magazine (「生活週刊」) before the war against the Japanese invasion, and one of the “Seven Gentlemen” in the intellectual circle who were imprisoned by the Nationalist government for inciting Chinese people to oppose Japanese aggression. Released from jail when the war broke out, his father had to flee to Hong Kong subsequent to the censorship of his publication “Nationwide War of Resistance against Japan” (「全民抗戰」) for its leftist inclination. After his father died of cancer, and when braving his way to Shanghai, Zou Jingmeng and his elder brother Zou Jiahua (鄒家華, later Vice Premier) were adopted by Zhou Enlai (周恩來). After the communist victory in 1945, Zou at the age of 14 embarked on a career as a meteorological observer when the PLA took over the weather station in Yan’an from the US army. Initially pegged at the vice-minister level, his post of CMA Administrator was elevated to the minister level by virtue of his presidency at WMO. Because of his background, I was able to meet through him Mainland civil aviation staff responsible for Taiwan affairs. This enabled a better understanding of their intentions and the authenticity of matters arising out of the negotiation process in Hong Kong. Subsequently, all the issues, including the initiation of the first direct flights between Macao and Taiwan, were resolved smoothly.

**The successful handling of the first cross-strait meteorological conference in early July 1989 also had a strong effect on the development of meteorological community in Hong Kong.** Director Sham’s month-long leave away from Hong Kong prior to the meeting called upon the efficiency and flexibility of Mr. Lam Chiu-ying and other Observatory colleagues, whose capable handling of the intricate situation was one of the crucial factors for the Conference’s success. As there was no meteorological society in Hong Kong at the time, the Observatory’s efforts in liaising with Taiwan were much hampered by the political sensitivity. To facilitate the conference and subsequent and other future activities, Messrs. Sham and Lam worked with the local academics to establish the **Hong Kong Meteorological Society**. The Society has since grown and become very vibrant, surpassing its Taiwan

counterpart in many areas such as attendance rates in seminars and meal gatherings, as well as in student and adjunct memberships.

Before the 1st Conference, **Prof. Lim Hock (林浩)**, who later became the head of Singapore's national Temasek Laboratories, introduced me to **Prof. K.K. Phua (潘國駒)**, Chairman and Chief Editor of **World Scientific Publishing Company (WSPC)**. Although established for only 7 years and limited in scale, the company was already enjoying growing reputation in areas such as physics and chemistry. Prof. Phua was instrumental in supporting the publication of the Proceedings for all four Conferences. Subsequently, WSPC rapidly developed into a leading, well-known global scientific publisher, now covering the publication of Nobel laureate lectures for the Royal Swedish Academy of Sciences. To further expand activities in atmospheric sciences, Prof. Phua decided to cooperate with our WMO Monsoon Panel to launch a book series on East Asian meteorology, which is now called the Series on Asia-Pacific Weather and Climate. The Proceedings for the 4th Conference in Hangzhou in 2000 was the basis of the first volume and jump started the book series.

The 3<sup>rd</sup> volume of the WSPC book series also reminded me of the 1989 cross-strait conference in Hong Kong. This was a collection of papers by the alumni of **the Nanjing Institute of Meteorology (now part of the Nanjing University of Information Science and Technology)**, many of them professors at US universities, in commemoration of their former President, Prof. Zhang Jijia. This brought my memory back to 1983, when my acquaintance with Prof. Zhang started in the First US-China Workshop on Cooperative Monsoon Research in Beijing. In 1984, Prof. Zhang also hosted me in Nanjing, where I was requested by the US National Science Foundation to deliver a congratulatory message on behalf of the American Meteorological Society for the 60<sup>th</sup> anniversary meeting of the China Meteorological Society, for which he was the executive director. Five years later came the unpleasant all-night argument over the long-distance phone call, which arose from differences in role, position and ideology in connection with the cross-strait conference after the June 4th incident at Tiananmen. I still regret this unfortunate argument, even though I can find a little consolation in being able to contribute in a small way after his passing, appreciate the sheer number of talented scholars he nurtured, and assist in the publication of papers by some of his most accomplished former students written in his memory.