AIR WEATHER SERVICE IN SOUTHEAST ASIA 1961–1976 A PICTORIAL ACCOUNT

MILITARY AIRLIFT COMMAND SCOTT AIR FORCE BASE ILLINOIS

Mainland Southeast Asia
AIR WEATHER SERVICE
IN
SOUTHEAST ASIA
1961 -- 1976
A PICTORIAL ACCOUNT

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Office of MAC History
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Approved:

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"In military air operations weather is the first step in planning and the final determining factor in execution of any mission."

General Carl A. "Tooey" Spaatz
30 June 1948

Preface

The Air Weather Service became involved in weather support to the United States Air Force and Army in Southeast Asia in December 1961, when it placed a forecaster in Saigon to support some reconnaissance aircraft. It received the first formal statement of requirements for support at Tan Son Nhut and Bien Hoa, Vietnam, and Don Muang, Thailand, on December eighth.

The rapid buildup of the Air Force and Army units in Southeast Asia was reflected in the increased weather support requirements and Air Weather Service's response to those needs. Weather support increased and waned as needed through the advisory period, the combat period, and withdrawal from Southeast Asia.

Mr. John F. Fuller, the Air Weather Service historian, suggested that since the history office had so many good photographs of weather personnel and operations in Southeast Asia that I screen them for compilation into a pictorial history. The following is the result. I am grateful for the direction and assistance given me by Mr. Fuller and Mr. Charles W. Dickens, Chief, Office of MAC History.

Margaret C. Faulbaum
Editorial Assistant to the AWS Historian
Office of MAC History
15 March 1979
# The Setting

The face of Southeast Asia was varied and beautiful,—long coastline, many rivers, lowlands, rugged mountains and dense vegetation.

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Above, Tuy Hoa Airfield, RVN, and below, Tay Ninh, RVN. These photos show typical clouds of Southeast Asia. Position of clouds on mountain gives cloud height.

\*

Weather Squadron Provisional (1st) activated 25 May 1962, inactivated 8 November 1962, when 30WS was activated. The seven dets organized 1 January 1962 grew to 25 dets by 8 July 1966.

** 1WG activated 8 July 1966, together with 5th and 10WSs, and 30WS reassigned to 1WG.
As in all wars past, weather was a factor that bore directly on the success or failure of operations conducted by both sides during the Southeast Asian conflict. For example, Admiral U.S.G. Sharp, U.S. Navy, Commander in Chief, Pacific (CINCPAC), in referring to the air operations of January-March 1966 (Rolling Thunder 48), wrote that "weather was a limiting factor throughout the period" which "caused a high percentage of cancellations or diversions and greatly limited the information obtained from bomb damage assessment," because pilots often "found 100 percent cloud cover or haze to 12,000 or 14,000 feet." Excluding B-52 sorties, approximately one out of every five strike sorties scheduled or conducted by USAF aircraft in Southeast Asia from January through 15 December 1966, were either cancelled, diverted, or rendered ineffective due to weather. While only 6.7 percent of the sorties ordered for targets in the Republic of Vietnam were affected by weather during that period, 41.9 percent of those against targets in North Vietnam were affected.

Writing later of the 1968 battle for Khe Sanh, General William C. Westmoreland, U.S. Army, Commander, U.S. Military Assistance Command, Vietnam (USMACV), noted that weather was "another critical factor [which] had to be considered," that "poor visibility during the northeast monsoon, ... because of low clouds and persistent ground fog, made helicopter movement hazardous if not impossible much of the time" and "posed major problems for close air support and supply by air."

In particular did the enemy take advantage of the Southeast Asian monsoonal climate. In what became a classic operation, he used the dry season to infiltrate men and materiel from the north along the Ho Chi Minh Trail into the Republic of Vietnam at its borders with Laos and Cambodia. In the wet season, with large portions of the trail impassable, he stockpiled materiel, improved and expanded routes, and prepared for the next dry season. North Vietnam's 1972 spring offensive into northern Quang Tri Province was launched under a protective canopy of low clouds, fog, and drizzle from the northeast monsoon that severely hampered initial air and ground operations by friendly forces.

Responding to requirements for meteorological support, Air Weather Service (AWS) ordered twenty-three weathermen to Southeast Asia on temporary duty in December 1961—Tan Son Nhut, Bien Hoa, Pleiku, Qui Nhon, Da Nang, and Nha Trang in the Republic of Vietnam, and Don Muang Airport in Thailand. Some assignments soon became permanent with the activation of seven weather detachments in Southeast Asia, effective 1 January 1962. By mid-January detachments had been established at Tan Son Nhut, Bien Hoa, Pleiku, Qui Nhon, Da Nang, and Nha Trang in the Republic of Vietnam, and at Don Muang Airport in Thailand.

The provisional weather squadron established in May 1962 was replaced later that year by the 30th Weather Squadron of the 1st Weather Wing. In January of 1963 it was moved to Tan Son Nhut. It was assigned twenty officers and eighty-two enlisted.
Above and below: 30th Weather Squadron Headquarters, Tan Son Nhut, November 1962.

Tan Son Nhut billets, 1962, for AWS weathermen.
Right and below: Billets.

Bien Hoa, RVN, 1962.

Left: Base Weather Station.

Representative observing site, Detachment 18, 30th Weather Squadron, 1962, at Don Muang Airport, Bangkok, Thailand. The photo below shows a Thai observer inside the site recording an observation.

Above: Headquarters complex.

Right: Base Weather Station.

Below: Inflation shelter.

Da Nang, 1962. Vietnamese Department of Meteorology weather station and rawinsonde building.

Right: Advising a member of the Department of Meteorology on reading the mercurial barometer.

Below: Inflation shelter, Detachment 21, 1st Weather Wing, Da Nang.
Da Nang mess hall, 1962, above, and below, showers and latrine.

Qui Nhon -- weathermen's living quarters and parking space, and below, officers' quarters.
Above, Qui Nhơn, 1962, temporary base weather station.

Above and left, newly-completed permanent BWS, November 1962.

View of Nha Trang airfield with mountain background. Below, Pilot-to-Forecaster Service, base weather station, Nha Trang Airbase, Detachment 10-2, 36th Weather Squadron.
Entrance to an Air Force leased hotel, Nha Trang. Below, one of the hotel rooms.

Takhli Air Base, Detachment 12, 30th Weather Squadron, 1963. Below, checking observation on table from MA-1 kit.

Advisory Assistance (1962 – 1965)

From 1962 until the Gulf of Tonkin incidents in early August, 1964, the 30th Weather Squadron's basic mission was to provide meteorological support to all Air Force and Army units in Southeast Asia. But its major task, like most United States military units there, was to advise and train indigenous military forces. In South Vietnam, most of the training was accomplished at informal weather schools and supplemented by on-the-job training (OJT) administered by squadron personnel at base weather stations. In March 1964, eleven VNAF students were graduated from the first class of an observer school established at Tan Son Nhut.

The program to train and advise the indigenous forces came to be called "Vietnamization."
Captain Tu Bo Cam, commander, VNAF Air Traffic Control and Weather Squadron, learns the U.S. Air Force method of recording a weather observation from 30th Weather Squadron commander, Lt Col Lewis L. Howes.

Checking surface wind speed is TSgt Ralph Smith, advisor to a group of Vietnamese weather students, and Army of the Republic of Vietnam (ARVN) Weather Technician John Dinh, on Ca Mau Peninsula, RVN.

Weather Forecaster Captain John J. Elliff prepared for a trip "up country" during temporary duty as the only helicopter pilot assigned to hauling men and equipment for the Southeast Asia Treaty Organization (SEATO) Exercise Air Boon Choo, held April 20–30, 1964, in Thailand.

Weather forecasters and observers from 1st Weather Wing stations throughout the Pacific–Southeast Asia theater, and the Thai weather personnel were responsible for the total military weather support to ground and air forces taking part in the exercise.

The weather task force was commanded by Colonel Bampen Xupravati, normally Director of the RTAF Meteorological Division. Below, at Bangkok, Colonel Xupravati points to weather map for Colonel Robert L. Sorey, 1st Weather Wing commander.
Rawinsonde operators waiting for release signal --

A weather observer with the 30th Weather Squadron in the Joint Air Operations Center, Tan Son Nhut AB, RVN, teaching his counterpart the "ropes" in plotting a surface map.

Then instruction in the use of weather sounding equipment, at Da Nang AB, RVN.

Training was also given to weathermen of the Royal Thai Air Force, both in class and on-the-job.
At Bangkok, Thailand, Captain Thomas Connolly, Jr., 30th Weather Squadron, holds orders sending (L to R) Second Lieutenant Tawatena Rajanatana and Lieutenant Uthai Sonchong, Royal Thai Air Force weather forecasters to a meteorological course at St. Louis University in 1963. Below, A1C Sawek Yakkum receives some instruction from A2C Clinton Gibb, Jr., at Takhli, Thailand, 1962.

Here RTAF Sgt Watlama Edinman learns to operate a teletype machine under the guidance of SSgt Robert E. Dowette, Det 15, 10th Weather Squadron, Takhli AB, Thailand.

Sgt Donald K. Rowe, Det 15, 10th Weather Squadron, aids Sgt Prasan Sunrueng of the Royal Thai Air Force Weather Division in plotting a chart.

Left, A2C Pramote Sakul of the RTAF checks the graph made by a wind measuring instrument.
Vietnamization took another step forward on 1 June 1972 as the Da Nang Air Base ROS was turned over to the Vietnamese Air Force by Detachment 9, 1st Weather Group.

Left, maintenance training at 1st Weather Group. Right, Major Frank G. Johnson, 30th Weather Squadron, discusses the Vietnamese improvement and modernization program with Lt Colonel Tran Van Minh, HQ VN AF/ATC/Ops and Weather Division, outside Lt Colonel Minh's office, Tan Son Nhut AB, RVN. Below, Colonel Morris H. Newhouse, 1st Weather Wing commander, attends graduation of VN AF equipment repair class, 14 September 1971.
A unique aspect of AWS' mission involved deployment of some commando weathermen to Thailand in early 1965 where they trained Laotians as forward weather observers for use in developing a limited weather observing net in Laos to support air operations. After providing some initial training in Thailand, Captain Keith R. Grimes and some of his men entered Laos later that year to establish the net. Operating in an atmosphere they described as "super secret, cloak and dagger," they functioned not only as weathermen and advisors, but as forward air controllers, intelligence gatherers, and fighters. Posing as civilians with varying cover stories and carrying only a civilian identification card, they labored in Laos under the most hazardous conditions without diplomatic protection—for there was no official United States recognition of their presence. AWS special warfare weathermen remained in Laos nearly continuously until the conflict's end keeping the vital weather-observing net functioning.

The six commando weathermen in this photograph taken in 1964 formed the nucleus of Detachment 75, 2d Weather Group (later the 5th Weather Wing), and most saw action in Laos. They were, from left to right, A1C Wayne L. Golding, A1C Andrew V. Wilder, Captain Keith R. Grimes (the detachment commander), A1C James P. Willams, MSgt Thomas M. Watson, and A1C Lloyd W. Mitchell. Wilder and Watson were at sites in Laos in late 1965 and early 1966 which were overrun by Pathet Lao and North Vietnamese troops—Wilder barely escaping with his life.
Above, Sergeant Watson instructing at Nam Lieu, and below, his weather observing class.

The commando weathermen were also forward air controllers and fighters, with the Laotians. Above is an arrow of faded cerise panels pointing to the target. Below is during a T-28 strike.
T-28 being loaded at Vientiane. It could carry four 500-pound bombs and two .50-caliber guns, one in each wing. Below, a T-28 over the Mekong Delta, left—and right, a hill just after it was hit.

Devastation and death followed. Above: three Meo soldiers with rifles viewing the scene below them—a ridge in Laos after repeated bombings for several days, by T-28s, and a few F-4s. In the foreground of the picture is abandoned North Vietnamese equipment. Mortar shells were carried in the black cardboard cannisters.

Left above: A Meo looking at a dead North Vietnamese soldier.
In spots too tight for light planes, helicopters like this Sikorsky H-34 were used. Helicopters provided the bulk of forward position airlift in Laos. Below, looking southwest on a 600-foot dirt strip as an H-34 prepares to land. Beyond the mountains in the background is the Plaine des Jarres.

In Cambodia AWS worked to upgrade their Khmer Air Force weather service in late 1974 and early 1975. Khmer Rouge advances made it impossible to continue.

Above: SSgt Steven D. Roush (second from left) and Lt Heng Touch, acting commander, KAF Air Weather Service, (far right), with KAF crew and UH-1 used to transport them to various sites to look over observing procedures and inspect (and repair or calibrate) weather equipment. Right: KAF director of training. Below: SSgt Roush (with glasses, front row) with KAF weathermen celebrating their successful completion of Pibal training.
KAF Air Weather Service personnel at weather instrument shelters at Pochentong.

Above: Lt Heng Touch at Nakhon Phanom during one of his trips to Thailand in 1974 to help train Cambodians. At the right is Capt Steven L. Richter, of 10th Weather Squadron, at Nakhon Phanom.

Left: SSgt Miguel C. "Mike" Salas, a weather equipment repairman who accompanied SSgt Rouah on training trips in Cambodia. SSgt Salas is standing beside a .50 caliber machine gun on the KAF UH-1 used to transport them.

Some Architecture in Southeast Asia.

Primitive shelters were built of the materials at hand. The 6-to-8 foot savanna grass that grew in Lao became thatch and matting. Grain bags became walls.

Right, Captain Grant McNaughton (USAF commando doctor) with staff in front of his hospital--built of 105MM howitzer boxes, at Na Khang.