

Swo

G-2
Rap

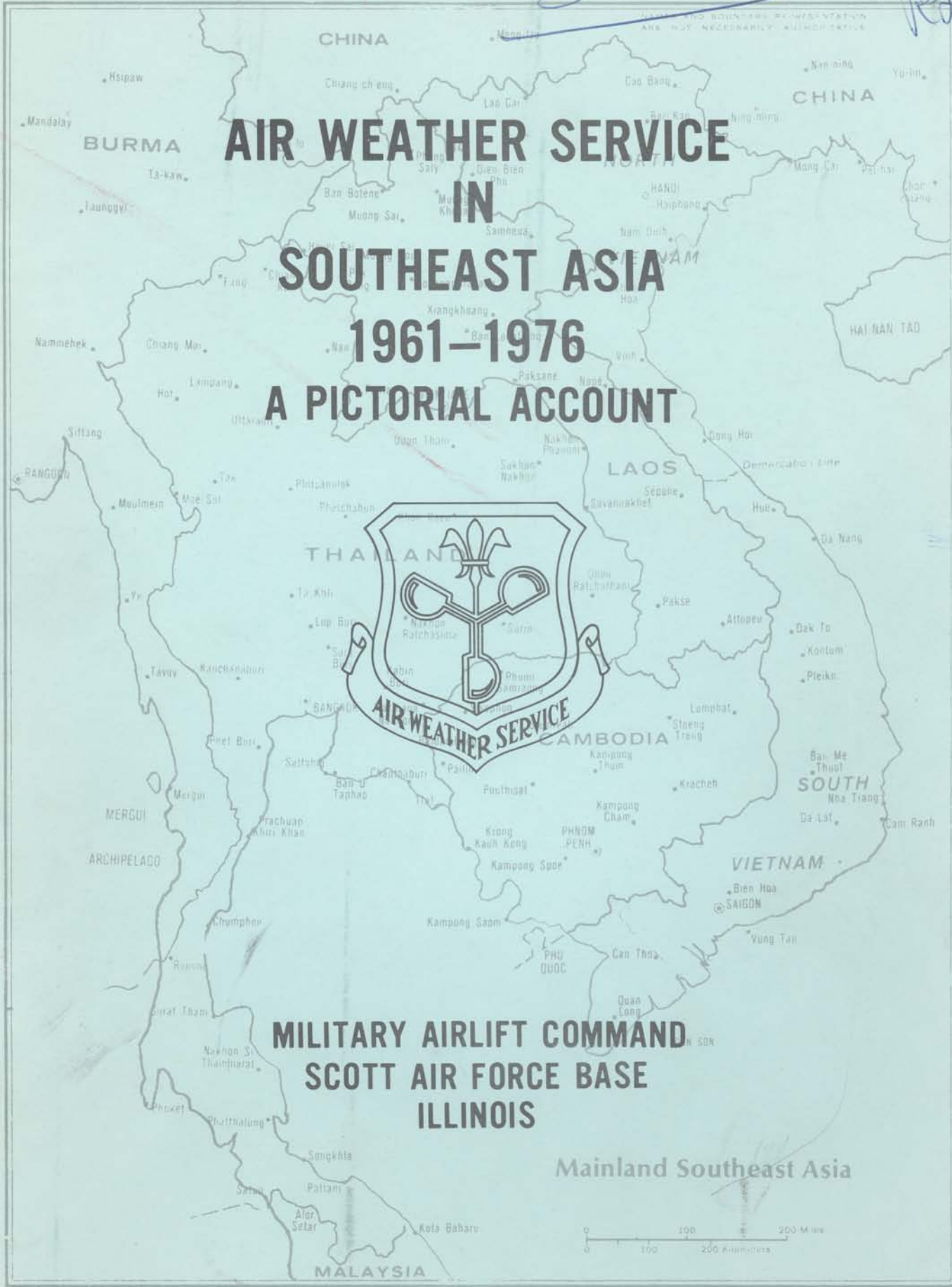
BOUNDARIES REPRESENTATION ARE NOT NECESSARILY AUTHORITY

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



MILITARY AIRLIFT COMMAND
SCOTT AIR FORCE BASE
ILLINOIS

Mainland Southeast Asia



A I R W E A T H E R S E R V I C E

I N

S O U T H E A S T A S I A

1961 -- 1976

A P I C T O R I A L A C C O U N T

Margaret C. Faulbaum
Office of MAC History

1979

Approved:



ALBERT J. KAEHN, JR, Brigadier General, USAF
AWS Commander

Military Airlift Command
Scott Air Force Base
Illinois



Faint, illegible text or markings at the bottom of the page.

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

General Carl A. "Tooeey" Spaatz

30 June 1948



Mainland Southeast Asia

TABLE OF CONTENTS

	<i>Page</i>
Map of Southeast Asia	iii
Preface	v
Table of Contents	vi
The Setting	1
Organization	5
Advisory Assistance (1962-1965)	22
Weather Reconnaissance	44
Military Airlift Command Support	48
Combat Support (1966-1972)	50
30th Weather Squadron	58
Site VI	72
5th Weather Squadron	76
10th Weather Squadron	105
Son Tay Prison Raid	112
Withdrawal	114
Glossary	125
Photo Credits	126
Appendices:	
Killed in Action	127
Manning	128
Key Commanders	129
Awards	130
Genealogy of AWS Units in Southeast Asia	133
Index	150

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.

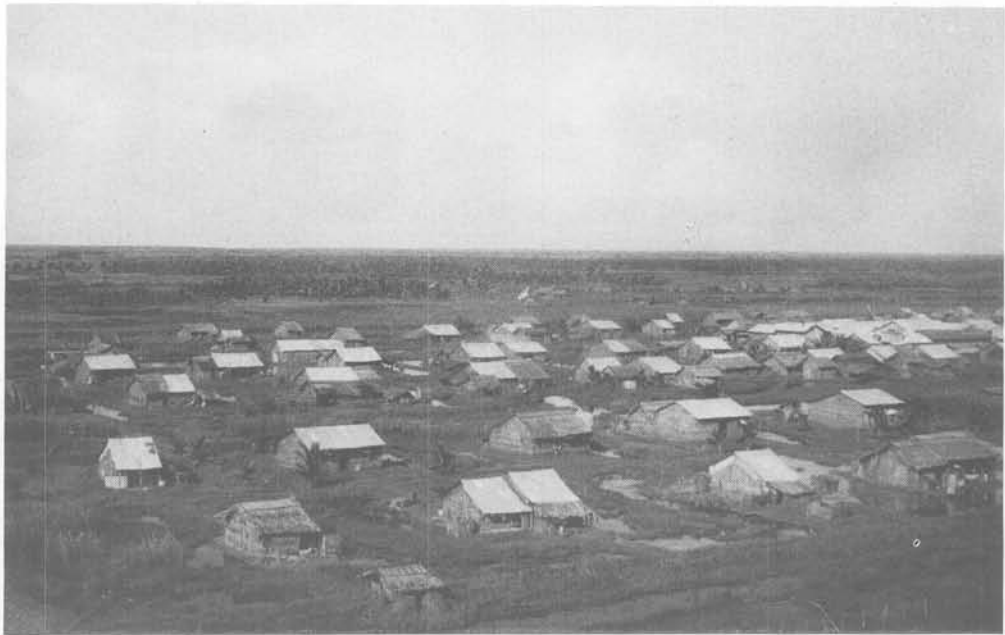
Margaret C. Faulbaum
Margaret C. Faulbaum
Editorial Assistant to
the AWS Historian
Office of MAC History
15 March 1979



The Setting



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







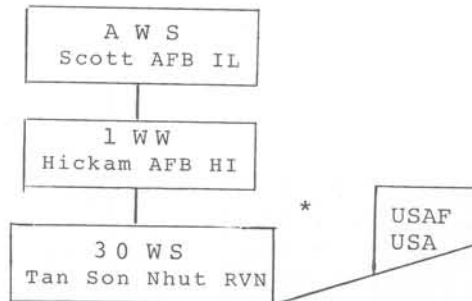
Above, Tuy Hoa Airfield, RVN, and below, Tay Ninh, RVN. These photos show typical clouds of Southeast Asia. Position of clouds on mountain gives cloud height.



ORGANIZATION

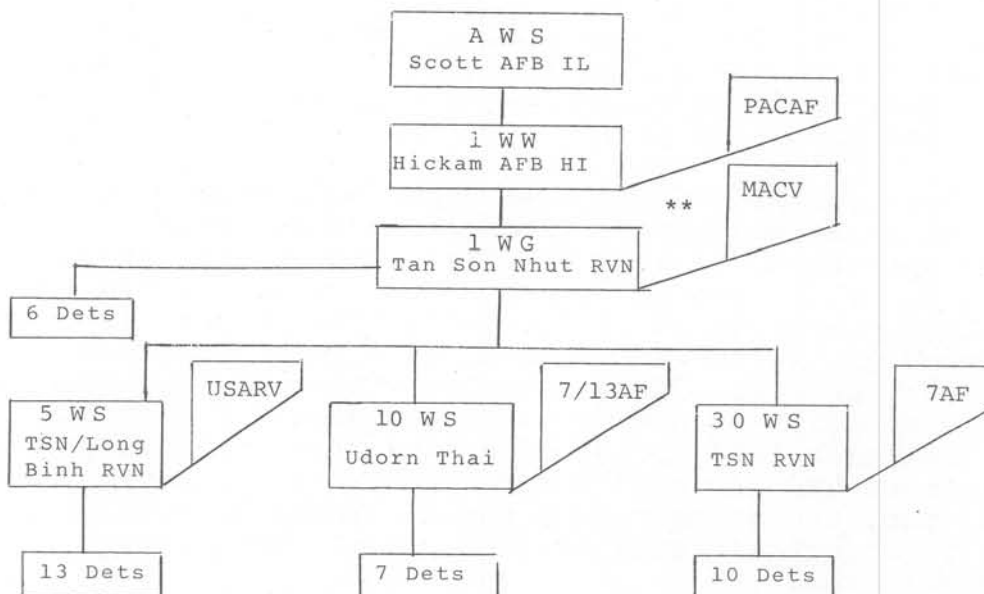
1962 - 1965

(Advisory Assistance)



1966 - 1972

(Combat Support)



* Weather Squadron Provisional (1st) activated 25 May 1962, in-activated 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, and Bien Hoa 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 at right: a Jamesway shelter housed the base weather station at Tan Son Nhut in 1962, then called Detachment 20, 1st Weather Wing.





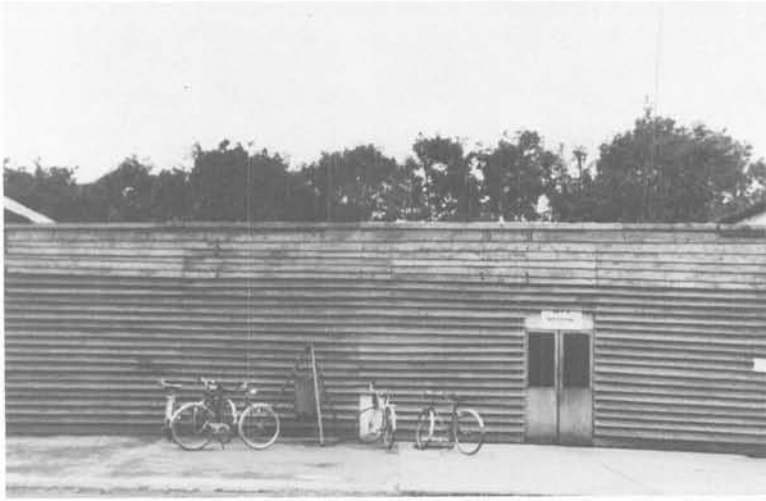
Above and below: 30th Weather Squadron Headquarters, Tan Son Nhut, November 1962.





Tan Son Nhut billets, 1962, for AWS weathermen.





Bien Hoa, RVN,
1962.

Left: Base
Weather Station.

Right and
below: Billets.





Representative observing site, Detachment 19, 30th Weather Squadron, 1962, at Don Muang Airport, Bangkok, Thailand. The photo below shows a Thai observer inside the site recording an observation.





*Detachment 20-3, 1st
Weather Wing, Pleiku,
RVN, 1962.*

*Above: Headquarters
complex.*

*Right: Base Weather
Station.*

*Below: Inflation
shelter.*





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

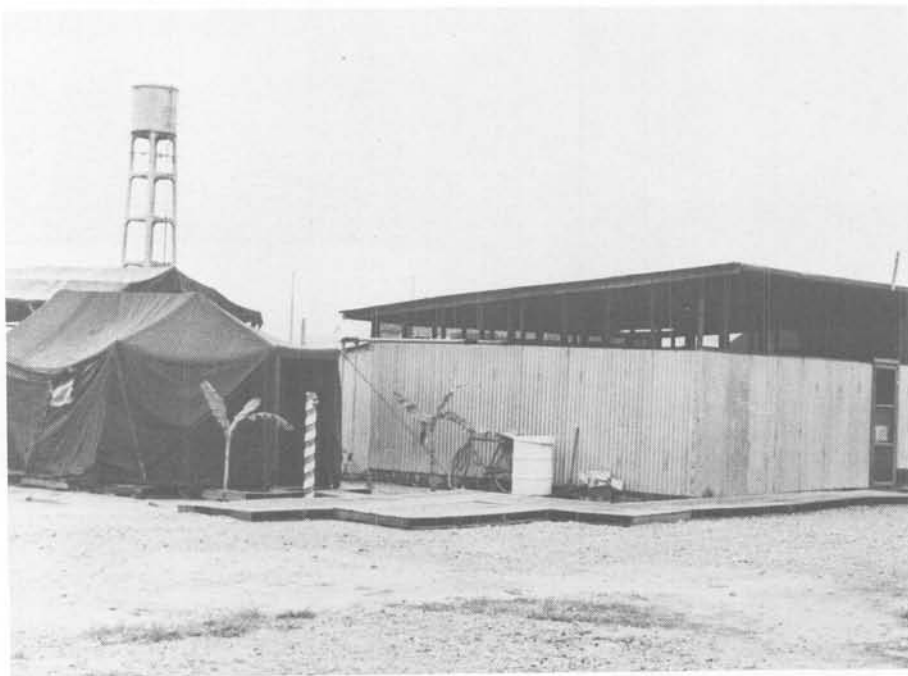
Right: Advising a member of the Department of Meteorology on reading the mercurial barometer.

Below: Inflation shelter, Detachment 21, 1st Weather Wing, Da Nang.





Da Nang mess hall, 1962, above, and below, showers and latrine.



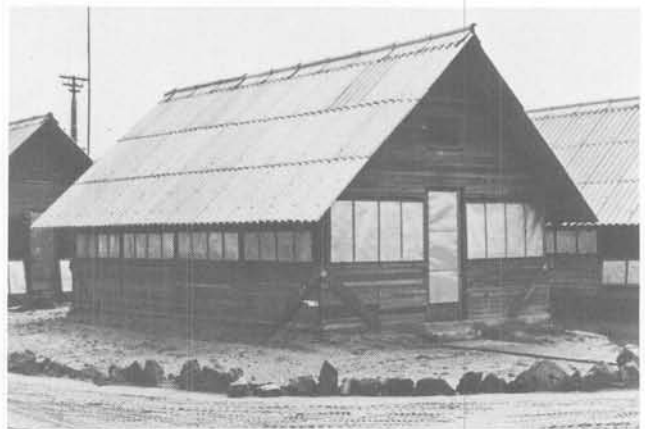


Qui Nhon -- weathermen's living quarters and parking space, and below, officers' quarters.





*Above, Qui Nhon,
1962, temporary
base weather station.*



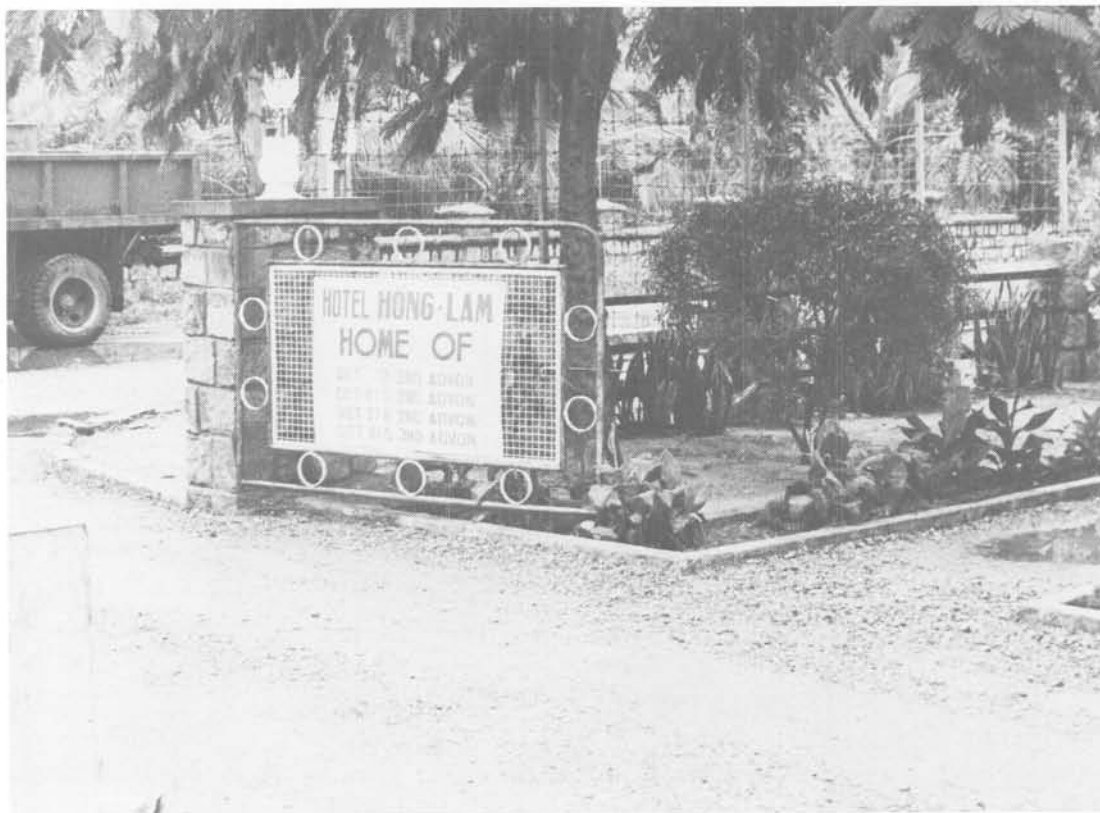
*Above and left,
newly-completed
permanent BWS, November
1962.*



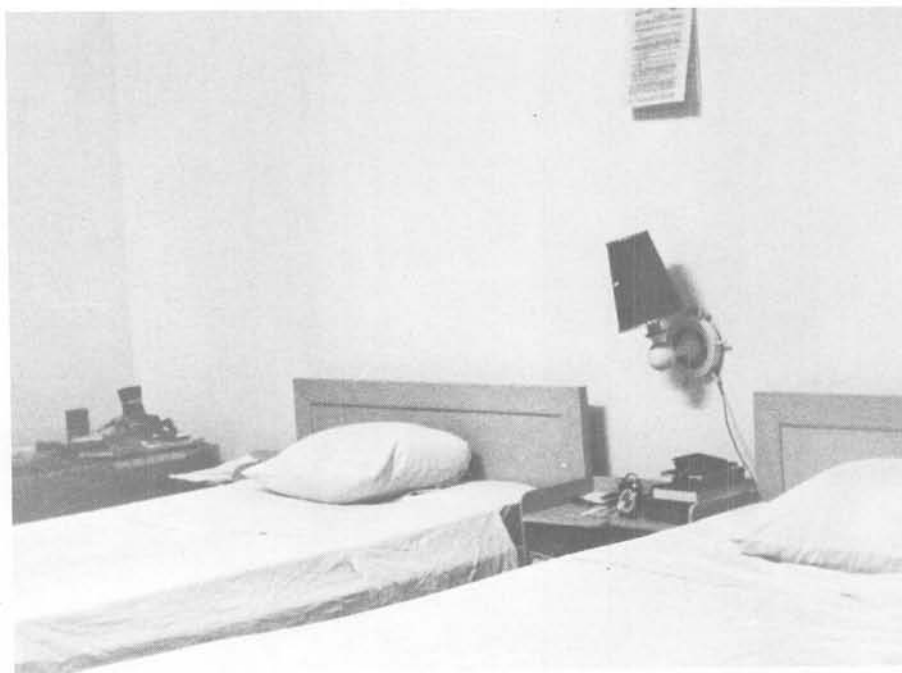


*View of Nha Trang airfield with mountain background.
Below, Pilot-to-Forecaster Service, base weather station,
Nha Trang Airbase, Detachment 20-2, 30th Weather Squadron.*





*Entrance to an Air Force leased hotel, Nha Trang.
Below, one of the hotel rooms.*





Soc Trang, December 1962. Instrument and inflation shelters above, and base weather station below. Ceiling light shown.





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





Phan Rang Air Base tower. Below, base weather station. Detachment 22, 30th Weather Squadron, was located at Phan Rang from October 1965 to 15 March 1972.



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.



Vietnamese weather observer class at Nha Trang, taught by TSgt Anthony D. Gallant, military weather advisor with Det 4, 30th Weather Squadron.

Right: Computing observations at Pleiku Air Base.



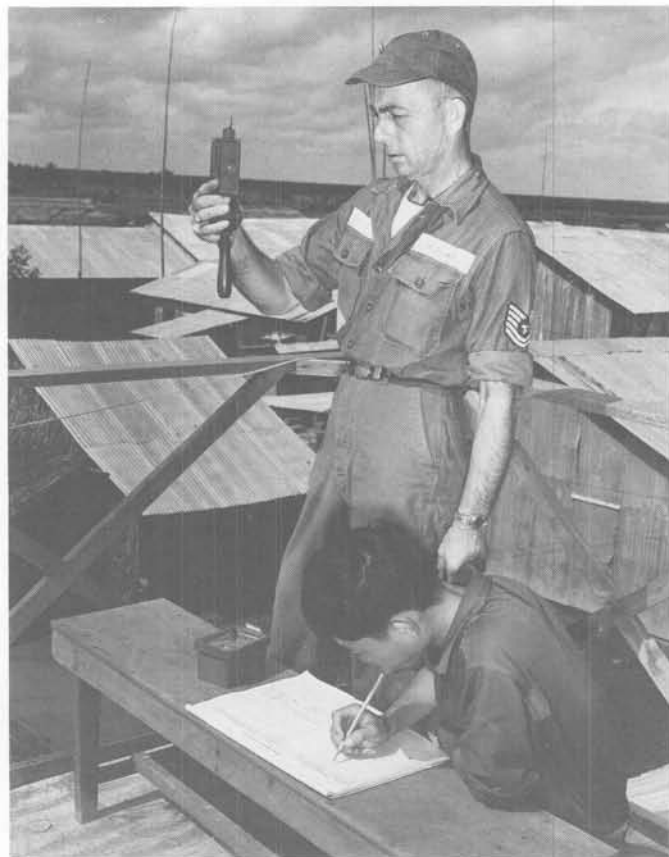
The program to train and advise the indigenous forces came to be called "Vietnamization."





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 --



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

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.





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 Tawatnai Rajanatana and Lieutenant Uthai Sonchaeng, Royal Thai Air Force weather forecasters to a meteorological course at St. Louis University in 1963. Below, A1C Sawek Yamkum receives some instruction from A2C Clinton Gibbs, Jr, at Takhli, Thailand, 1962.





Sgt Donald K. Rowe, Det 12, 10th Weather Squadron, aids Sgt Prasan Ounrueng of the Royal Thai Air Force Weather Division in plotting a chart.



Left, A3C Pramote Sakul of the RTAF checks the graph made by a wind measuring instrument.

Here RTAF Sgt Watlama Eaimaman learns to operate a teletype machine under the guidance of SSgt Robert E. Doucette, Det 12, 10th Weather Squadron, Takhli AB, Thailand.



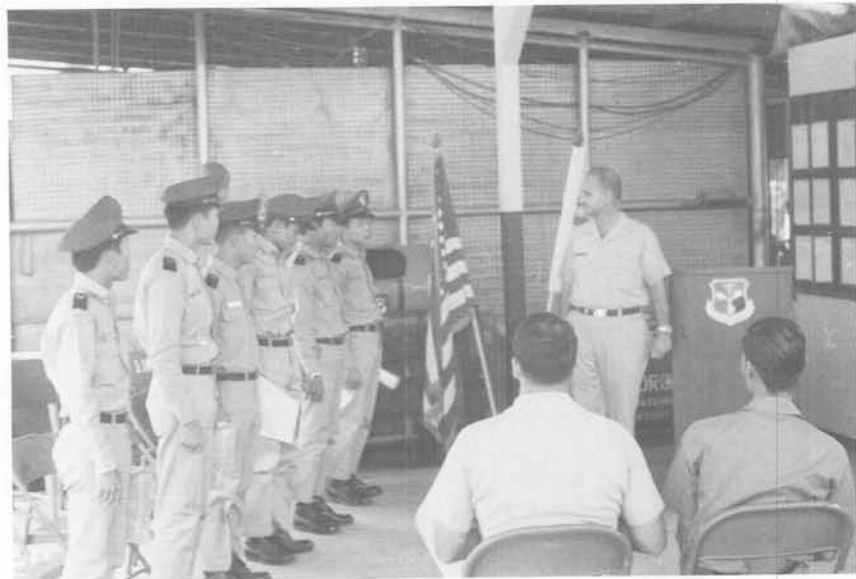


Vietnamization took another step forward on 1 June 1972 as the Da Nang Air Base ROS was turned over to the Vietnamese Air Force by Detachment 9, 1st Weather Group.





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 VNAF/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, at graduation of VNAF 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. Williams, 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 Tom Watson (left, back row), and a class of Laotian weather observers at Nam Lieu, Laos, with some of their basic weather observing equipment. Below, Captain Grimes (center, facing camera) and Sergeant Watson (right, back to camera) giving basic weather observing instructions to the class.





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.





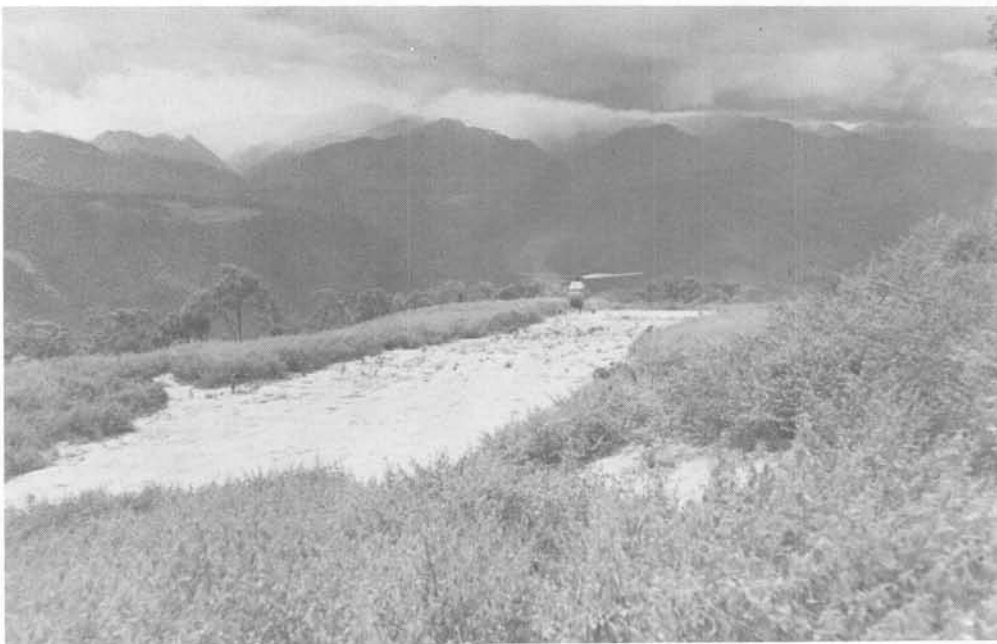
Devastation and death followed. Above: three Meo soldiers with rifles viewing the scene below them--a ridge in Laos after repeated bombings for several days, by T-28s, and a few F-4s. In the foreground of the

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 Roush 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 Laos 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.



Above left: Oil drums were used to catch rainwater, and also flattened for siding, Na Khang.

Above right: Vietnamese house near Pleiku AB, RVN.

Below: Open morning market at Vientiane, Laos.



Air Weather Service personnel were involved in humanitarian efforts also.

Right, SSgt Wilbur F. Bready of Det 5, 30th Weather Squadron and a Montagnard tribesman with a crossbow. The detachment sold Montagnard artifacts. SSgt Bready was the civic actions team leader. He acted as go-between for the hamlet chief and the Army to provide identification and access rights to the rice paddies for the Montagnards.



Personnel of most AWS units helped build, repair, and otherwise support schools, orphanages, centers for refugees, and for the blind. They also contributed to scholarships for the education of the children of the area.



Left, an orphanage in Vietnam supported by the members of Det 15, 30th Weather Squadron.

Right, Major John B. Walls, commander of Det 15, 10th Weather Squadron, distributing hospital gowns to the children of Udorn hospital.



Weather Reconnaissance

Another aspect of AWS support to theater operations involved the pictured weather reconnaissance aircraft. Each was used at one time or another for scout or pathfinder weather reconnaissance in support of the many fighter deployments to and from Southeast Asia. Two months after its B-52s actively entered the war in June 1965, the Strategic Air Command (SAC) asked AWS to perform weather scout reconnaissance of air-refueling areas during Operation Arc Light bombing missions from Guam to Southeast Asia. The first such mission was flown with an AWS WB-47E from Clark Air Base in the Philippines, on 7 August. Dedicated Arc Light weather scout reconnaissance was flown continuously with the WB-47Es from then until 1969 at an average rate of nearly two sorties per day, and thereafter on an as-needed basis by AWS' WC-130s, and WC-135Bs. In 1966, air-refueling area and weather scout reconnaissance also commenced in support of SR-71 deployments.



WB-47E



WC-135B

Finally, using WC-130Es, and three WC-130As specifically assigned for the mission, AWS aircrews on temporary duty at Udorn Air Base, Thailand, began flying rain-making missions in March 1967 over selected portions of Southeast Asia in support of Seventh Air Force requirements. Rain-making and weather reconnaissance flights continued from 1967 to mid-1972.



Above, C-130. Below, racks attached to the planes for the silver-iodide flares used in the rain-making efforts. Rain-making was conducted in Laos, North Vietnam, and sections of South Vietnam, with mixed results.



Andersen AFB, Guam, was as much a part of the Vietnam war as Pleiku or Bien Hoa. Supported by 1st Weather Wing's Detachment 2, this key SAC installation was a springboard for B-52 strikes. Det 2 weather reports, prepared before every launch of a B-52, provided SAC crews with up-to-the-minute wind, visibility and temperature conditions throughout the entire air corridor from Guam to Southeast Asia.

The B-52s carried 51 conventional "iron" bombs in bomb bays and clusters under the wings.

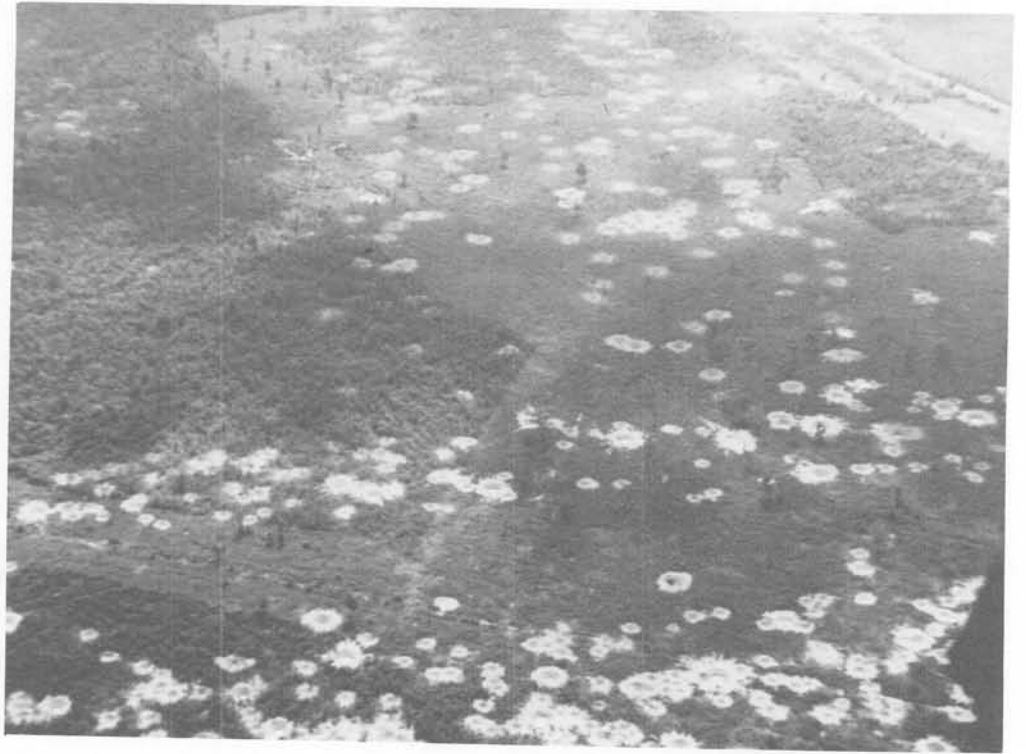


Above, SAC B-52 Stratofortress waiting to be loaded with 750-pound bombs in foreground at Andersen AFB in late 1965.



Left, returning, and below, a B-52 alert at Guam.





*B-52 bomb damage in the Republic of Vietnam,
1968.*



Military Airlift Command Support

*Eagle Thrust,
December 1967.*

*Seven weathermen
at Ft Campbell, Ken-
tucky, 7th Weather
Wing observers, fore-
casters, and briefers,
functioned as part
of the MAC airlift
control element during
the largest airlift
on record of a combat-
ready force into a war*



*zone. It was named
"Eagle Thrust" in honor
of the 101st Airborne
"Screaming Eagles"
Division.*

*Top photo, 101st
troops loading on a
C-141 at Ft Campbell,
and left, offloading
at Bien Hoa, RVN.*

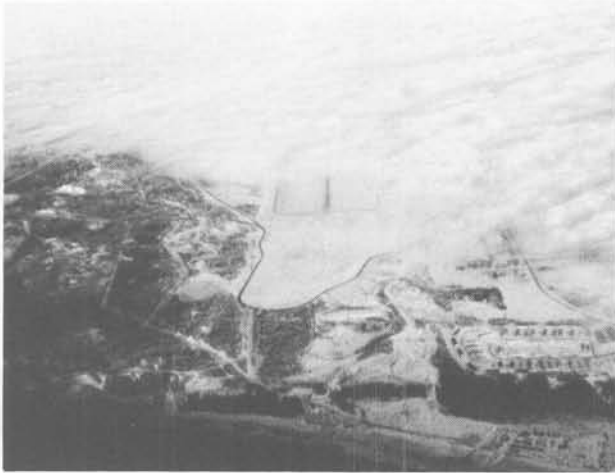
*Below, Eagle Thrust
cargo at Tan Son Nhut,
RVN.*

*Air Weather support
to MAC included computer
flight plans to crews
world-wide. These came
from Suitland, Maryland,
(Det 44, 7th Weather
Wing) during the early
part of the war, and
from Air Force Global
Weather Central (AFGWC),
Offutt AFB, Nebraska,
after August 1970.*



An unusual support AWS provided MAC was cold fog dissipation at Elmendorf AFB, Alaska, an important base for MAC C-141 traffic between the United States and Southeast Asia. The Alaskan Air Command requested AWS initiate a fog dissipation system there because operations at the base were frequently hampered by supercooled fog, particularly in December and January. The mission was officially assigned to AWS.

During the first season (Nov67-Feb68) WC-130s were used to drop crushed dry ice in fog-seeding operations. Thirty-seven seeding missions were flown, resulting in 91 recoveries and 94 departures which otherwise would have been delayed or diverted. The majority were MAC C-141s. The fog dissipation operations continued the following winters, with similar results, the method changing to ground-based propane seeding during the 1972-1973 season.



Elmendorf AFB, left, before, and below, sixty minutes after fog dispersal operation, using dry ice, during the 1967-1968 season.



Combat Support

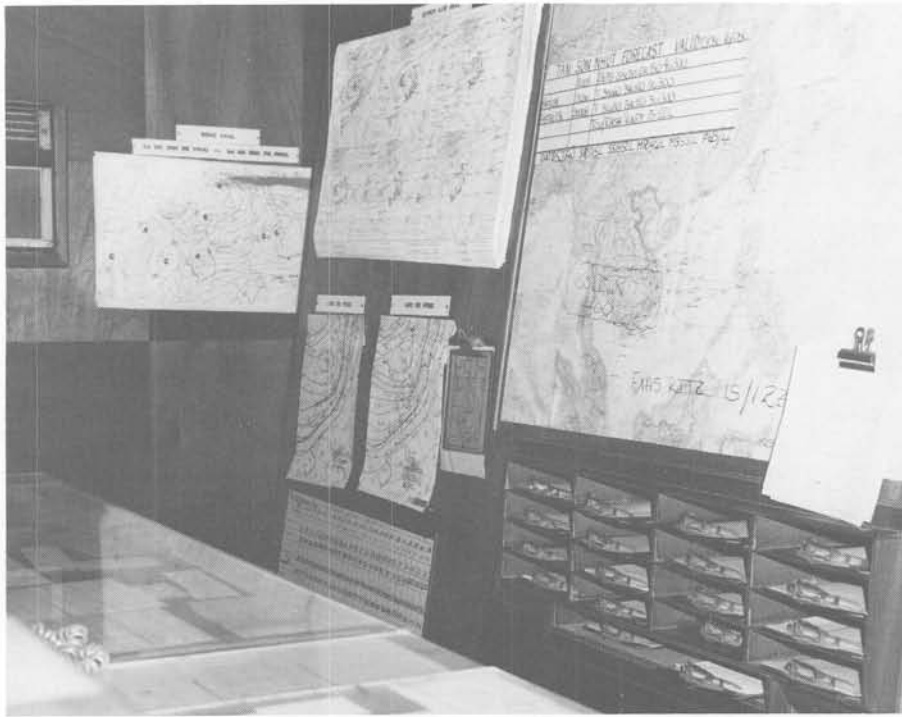
1966 - 1972

Following the Tonkin Gulf episodes, and the subsequent rapid influx of United States military personnel into South-east Asia, AWS expanded its theater organizational structure and augmented the manning to handle the increased workload. In the first six months of 1966, for example, theater weathermen issued 29,488 target forecasts--compared to 6,174 issued in the same period a year earlier.

Thus in mid-1966, the 1st Weather Group was activated at Tan Son Nhut under the 1st Weather Wing. Subordinate to it were three weather squadrons. From Udorn Air Base the 10th Weather Squadron supported Air Force units in Thailand. The 30th Weather Squadron remained at Tan Son Nhut and supported Seventh Air Force units in the Republic of Vietnam. Lastly, the 5th Weather Squadron, activated at Tan Son Nhut and moved to Long Binh Army Installation in July, rendered meteorological service to various elements of the United States Army, Vietnam, (USARV). That basic organizational structure remained intact until nearly the end of the conflict. At the group's peak manning, over 700 of AWS' 10,000 weathermen were assigned to various theater units, with 200 of them devoted to Army support.



Detachment 2, 30th Weather Squadron, the Saigon Metro, at Tan Son Nhut Air Base, from March 1963 - October 1970.



Saigon Metro

One very busy unit, organized in Saigon as Detachment 14, 30th Weather Squadron, was reassigned to the 1st Weather Group upon its activation in 1966, and designated the Southeast Asia Tactical Forecast Center (SEATFC). In early 1967 it was redesignated the Southeast Asia Joint Operations Center (SEA WECEN) and in August moved to the Seventh Air Force compound at Tan Son Nhut. It was later redesignated the Southeast Asia Weather Center (SEAWECEN).

Its mission was varied and included support to the USMACV, Seventh Air Force and various Army and Navy units. Among the support requirements were daily pictorial weather summaries, seven day outlooks, a weekly stand-up briefing to the USMACV commander, target forecasts for all in-country and out-of-country air activities, winds along the coast, river stages, sea conditions, and forecasts for specific Navy and Army operations. The unit was one of the most complete weather-support organizations ever developed for an operational theater.



Proposed target in North Vietnam is located by Major Ray B. Coffman, commander of Detachment 14, 30th Weather Squadron, at Saigon. A most important product of the detachment were the detailed target forecasts prepared for the use of Air Force and Navy pilots who daily carried the war to North Vietnam. One of these special forecasts was prepared for every mission flown. (1965)

Below, Captain Dennis P. Woodruff, forecaster and commander of OL 3, Detachment 32, 5th

Weather Squadron, Dong Tam, briefing commanding general, 9th Infantry Division, and his staff.

Personalized staff weather officer support was a service AWS rendered to the key personnel at various echelons of command at both Army and Air Force units in Vietnam. Referring to such service, and the overall weather support provided his command, General Westmoreland remarked in early 1967 that "no other U.S. military commander ever had the advantages of the outstanding weather support" he had at his disposal.



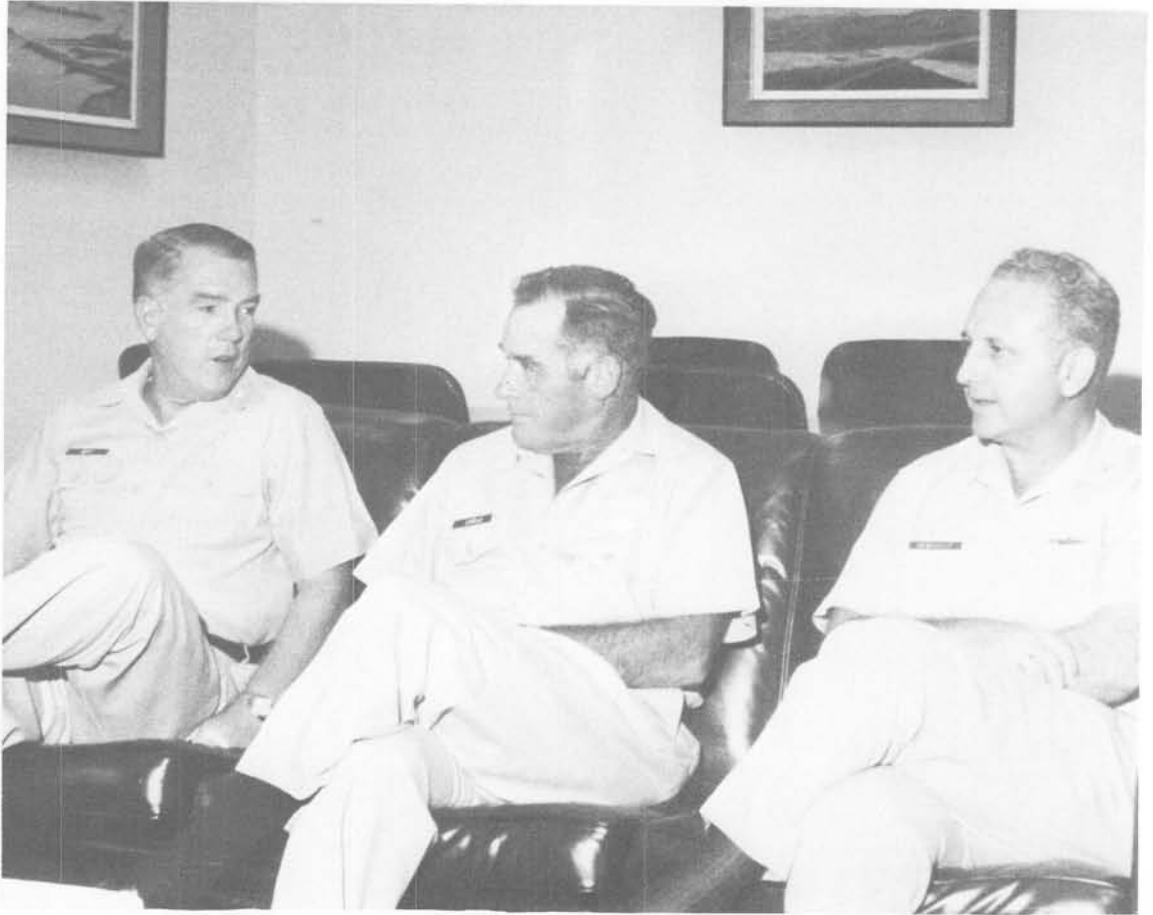


Above, TSgt Max A. Casias, Detachment 3, 30th Weather Squadron, briefing a combat crew at Bien Hoa AB. Below, the weather briefing section at Tan Son Nhut AB.





Detachment 36, 30th Weather Squadron, Tuy Hoa Airfield, RVN. Upper left, weather observing site under tower cab; upper right, checking the TMQ-11 Transmitter; below, going over final details for an up-coming weather briefing are 1/Lt John C. Stevenson and Capt Clarence M. Duff, detachment commander. The 30th Weather Squadron detachment gave more than 11,600 briefings in its first year of operation, 1 November 1966 - 1967.



Headquarters, Seventh Air Force, Tan Son Nhut, RVN, with commanders of Air Weather Service, Seventh Air Force and 1st Weather Wing, left to right, Brigadier General William H. Best, Jr, General John D. Lavelle, and Colonel Newhouse, on 14 September 1971, during AWS commander's tour of AWS units.

Upon General Best's return, he remarked that he thought General Lavelle was the most weather-conscious Seventh Air Force commander in the war, and that there was a slow but steady and significant improvement in the use of weather information over there.

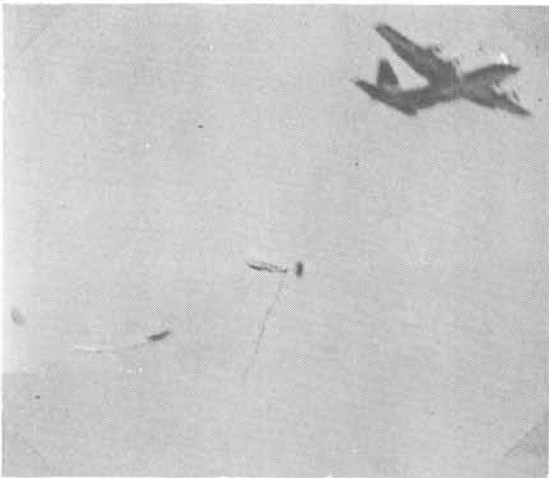


Figure 1

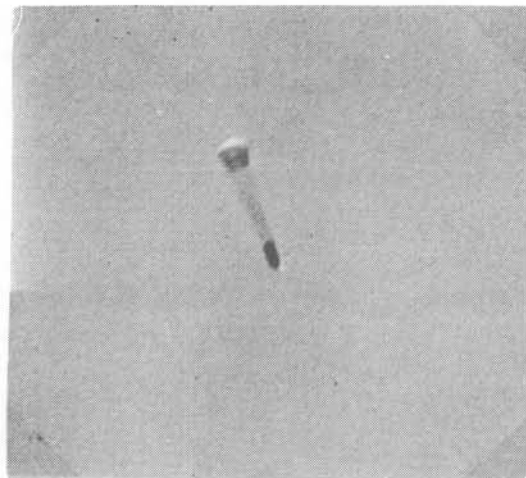


Figure 2



Figure 3

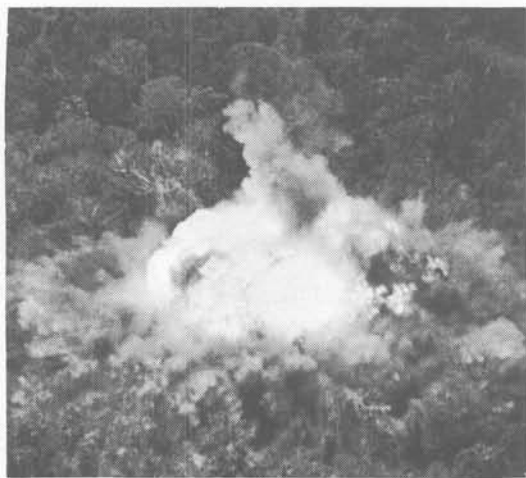


Figure 4

Detachment 18, 1st Weather Group, provided operational weather support for Commando Vault combat missions, flown by C-130 aircrews of Detachment 2, 834th Air Division at Cam Ranh Bay, RVN. The objective of each Commando Vault mission was to drop a 15,000-pound bomb to create a landing zone for Army helicopters. The missions were radar-controlled, with the bomb extracted from the rear of the aircraft by parachute. A second parachute would open to stabilize the falling bomb. A long probe on the nose of the bomb insured that detonation would occur several feet above the ground, directing the full force of the explosion against the jungle foliage without leaving a crater.

Figures 1 through 8 show a typical sequence of events from the extraction of the bomb by parachute to the final

landing zone produced from a successful Commando Vault exercise. Within five minutes after the explosion, the area was safe and helicopters could land.



Figure 5

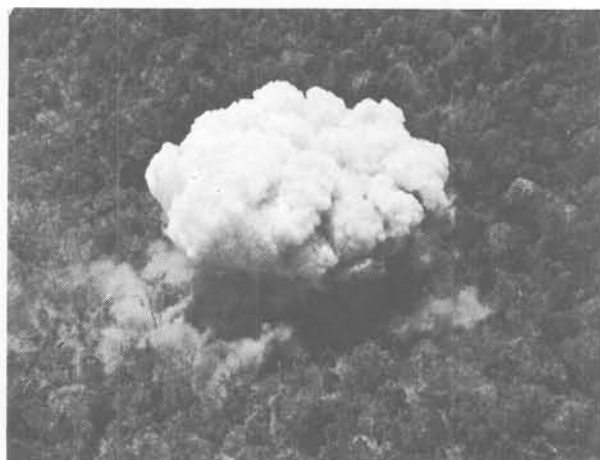


Figure 6



Figure 7



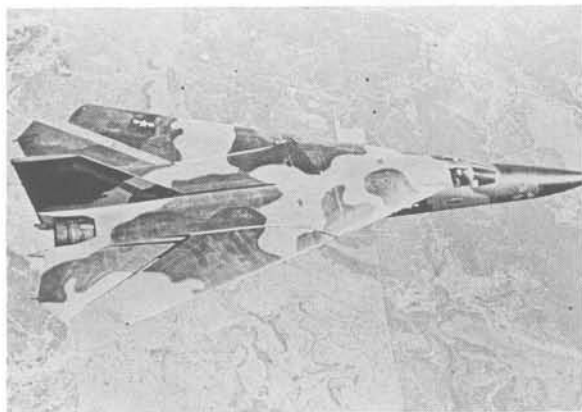
Figure 8

30th Weather Squadron

Weather support was provided to the types of aircraft pictured, which were used in Southeast Asia.



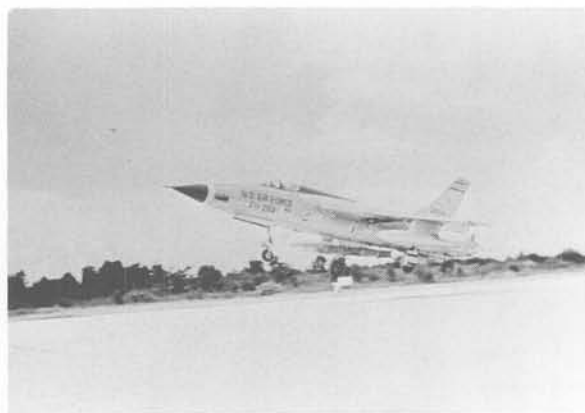
A-37



F-111



F-100s



F-105



RF-101



Above: C-130



Left: C-47

Below: SR-71





KC-135 Refueling B-52



C-123



O-1A



A-1E



F-4C



At Cam Ranh Bay, Detachment 18, 30th Weather Squadron--A2C Jerry L. Lard records an observation in the representative observing site, and A2C Duane W. Timm checks precipitation gauge.





1/Lt Robert E. Dettling, a weather forecaster assigned to the 30th Weather Squadron's Detachment 3 at Bien Hoa Air Base, receiving a pilot report (PIREP) in 1965 of weather conditions from 1/Lt N. K. Luyen of the Vietnamese Air Force.

Lt Dettling said, "There is always so much moisture in the air here that the smallest disturbance will cause clouds. This is why pilot reports are so important."

AWS' 30th Weather Squadron, the Vietnamese Air Force Weather Division, and the Royal Thai Meteorological Service cooperated in a combined operation covering all of Southeast Asia.

Bien Hoa's weathermen based their forecasts on information supplied by a large weather center in Saigon, special III ARVN Corps reporting points, pilot reports, and their own visual observations.



*Left, Vietnamese
paratroops board C-123
at Vung Tau.*

*Below, jumping
near Tan Son Nhut.*





Transmitting a weather observation over a single sideband radio to a Vietnam outpost is TSgt Ralph E. Smith, 30th Weather Squadron, while Major William Waggy, Jr, staff weather officer, listens.

A1C Raymond J. Braun regulates flow of hydrogen into a weather balloon at Da Nang AB, RVN. Studying the operation is Ngo T. Phat, a civilian rawinsonde operator of the Vietnamese weather service.



At Binh Thuy AB, SSgt Norman D. Berghuis checks weather reports from other bases being received over the teletype.



*Detachment 7,
30th Weather Squadron,
at Soc Trang,
RVN.*

*Weathermen in
1963, at left, sup-
porting the 2d Air
Division, and below,
in 1965, supporting
the U.S. Army 121st
Aviation Company,*



*both units called "The
Soc Trang Tigers."*

*In the very active
Mekong Delta area, this
was a double-duty detach-
ment which manned a gun
position near the weather
station as part of the
base defense.*

*Above, Soc Trang's chief forecaster, TSgt Leonard
Davis, briefing Army pilot 1/Lt Kennard F. Hill,
prior to his departure on a resupply mission to a
remote hamlet in the Mekong River Delta.*

*"Looking North"--
is A1C Ronald D.
Marquardt, clad in flak
vest, M-16 rifle ready,
standing guard in 1968
near sandbagged weather
instrument shelter at
Dong Ha AB, some six
miles south of Demili-
tarized Zone (DMZ) in
RVN. Detachment 9,
30th Weather Squadron,
operated an observing
location there.*



*A1C Norman Bowers
and SSgt Arthur Brooks
track a gas filled
balloon to learn speed
and direction of winds,
for Detachment 9.*



Lt Colonel James H. Gillard, the commander of the 30th Weather Squadron's Detachment 2, and TSgt Charles J. Hoffman, at Tan Son Nhut in April 1966, checking the console of the first weather radar--AN/CPS-9--installed by the Air Force in the Republic of Vietnam. The AN/CPS-9 was a long-range, storm-detection radar capable of providing accurate, three-dimensional information for tracking and plotting rain and storm clouds within a 250-mile radius. Its antenna rotated atop a 70-foot high tower.

The following page contains photographs of a radar tower under construction at Qui Nhon, where an Army helicopter lifted the radar equipment to the platform.

The AN/CPS-9 radar unit, worth \$122,000 was eventually replaced by the smaller AN/FPS-103 radar worth \$27,000, with a range of 125 miles. The FPS-103, less sophisticated, was easier to maintain.



Building the Qui Nhon tower with a helicopter assist.



*SSgt Frederic O'Brien
teaching WTR-1 radar
theory in classroom. (1967)*

The WTR-1 radar mock-up built from spare parts. There were seven sets in the Air Force inventory. This was the eighth set. It was fully operational and could be deployed.

Below: WTR-1 operational at Phu Cat base weather station.





The rains brought discomfort for the weathermen too. Above 2/Lt Robert C. Richey at An Khe, and right, at Vinh Long, TSgt Lawrence L. Young measures the water in the base weather station. The flooding was the result of poor drainage and a heavy rain.





*Equipment maintenance
was continuous.*



Site VI

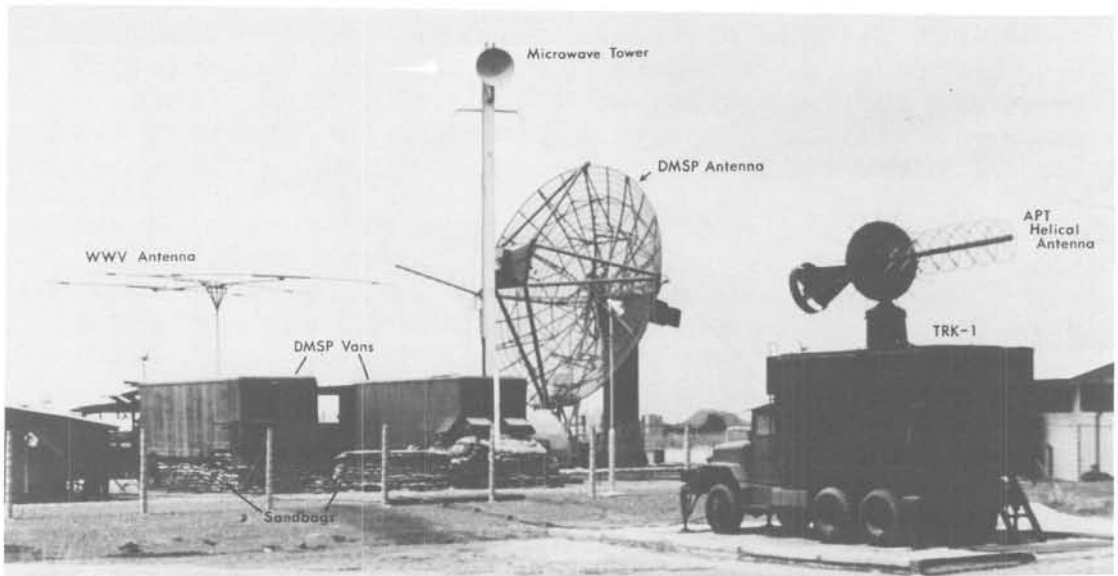
There was a sophisticated weather-observing tool of space-age vintage that proved invaluable to the weathermen in Southeast Asia--the meteorological satellite. In January 1964 the weather forecast center at Tan Son Nhut received its first pictures from the Television and Infra-red Observing Satellite (TIROS VIII). While helpful, pictures from TIROS and the follow-on Nimbus satellites were generally of poor quality and not timely enough to meet purely tactical military requirements.

In 1965 a readout site was established at Tan Son Nhut, designated Site VI, that provided pictures of comparatively higher quality from the Air Force's Data Acquisition and Processing Program (DAPP) weather satellite. DAPP was re-designated as the Defense Meteorological Satellite Program (DMSP) in the early 1970s.

In Washington, D.C., the national command authorities were kept advised of the weather in Southeast Asia with the help of satellite photographs handcarried to the White House.



The DMSP Site VI at Tan Son Nhut.



Site VI components. Pictures from the National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) Automatic Picture Transmission (APT) weather satellites were acquired with the TRK-1 mobile van. Before 1967 DMSP imagery and APT data were microwaved to the Seventh Air Force command post and USMACV. The imagery could be processed at Site VI in case of microwave failure. The WWV antenna was used for time checks.



Automatic Picture Transmission mobile unit.

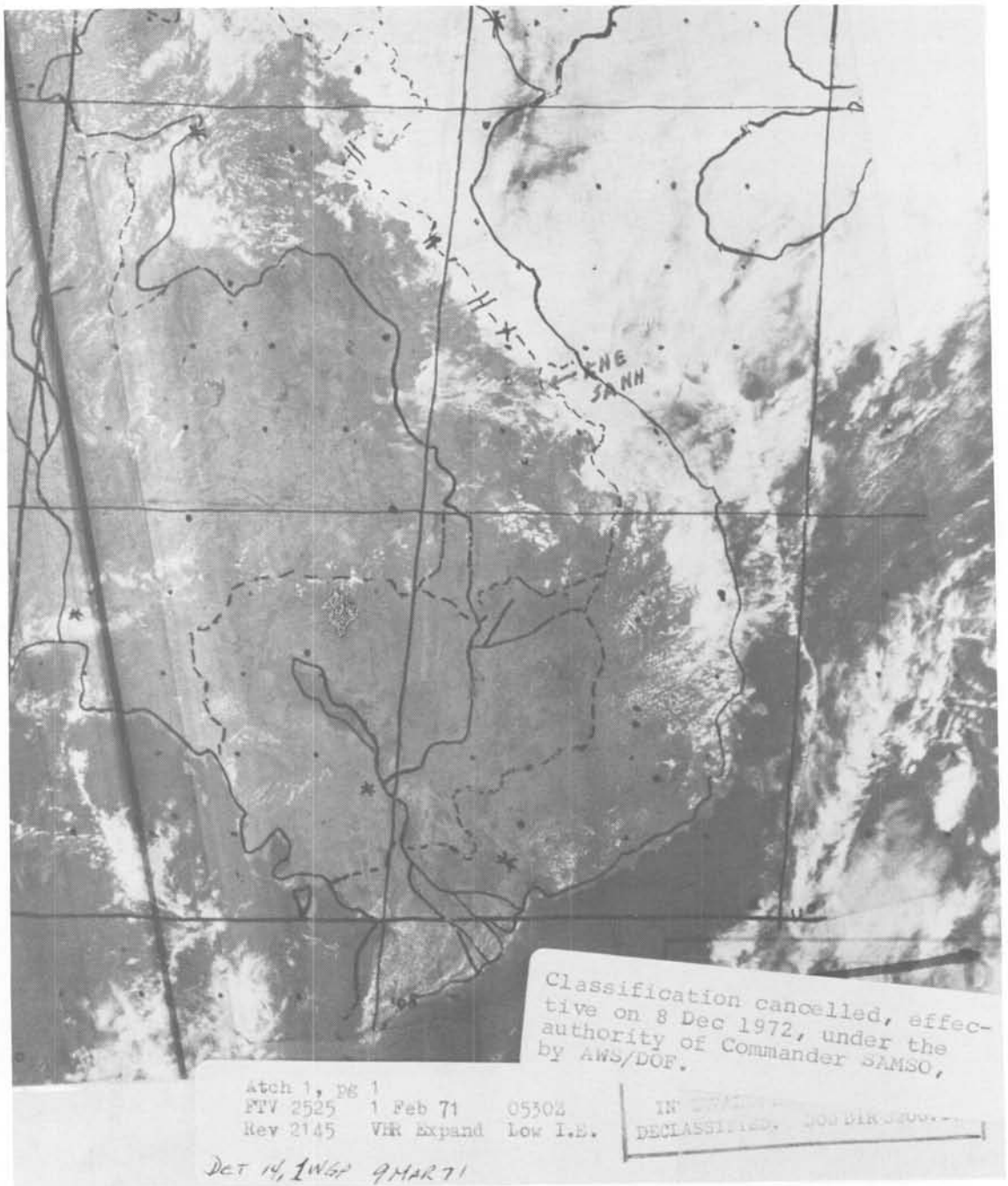
General William W. Momyer, Seventh Air Force commander, when interviewed by Mr. John Hart, Columbia Broadcasting System news correspondent, on 4 May 1967, said, "this weather [satellite] picture is probably the greatest innovation of the war."

In his book, *Air Power in Three Wars*, General Momyer wrote, "When satellite pictures were available . . . they became the primary source of determining the cloud condition in the target area. Without them and with only the traditional forecast, many missions would not have been launched. The satellite picture allowed us to launch a mission with a reasonable probability that favorable cloud conditions would prevail at the time the strike forces arrived. . . . Thus, the satellite picture was a major advance in providing the commander with real-time information about the weather his forces would probably encounter."

It was the DAPP pictures General Momyer referred to primarily. They became priceless aids to both the weathermen and the decision-makers in numerous tactical situations during the conflict--including the Son Tay POW raid and the reopening of Khe Sanh.

River flooding was of particular importance to the Army in Southeast Asia. Early morning low angle weather satellite views enabled glints off rivers and lakes to be enhanced on the photos if no cloud cover was present. This photo is an example of glinting off lakes, the Mekong, Nam Mun, Lam Chi rivers, and offshore ocean areas south of SEA.





A DAPP picture of Southeast Asia read out at Site VI at 0530Z, 1 February 1971, with Khe Sanh pinpointed. That day a combined effort by United States and South Vietnamese forces was underway to reopen Khe Sanh. DAPP pictures were instrumental in providing weather forecasts for the massive air support effort. As indicated thereon, DAPP photos were declassified on 8 December 1972.

5th Weather Squadron

Air Weather Service's principal mission in Southeast Asia after the Tonkin Gulf incidents was providing weather support for both air and ground operations. Soon after the sizeable influx of Army forces into the Republic of Vietnam in 1965, weather observer teams began deploying forward with combat brigades and battalions on "clear-and-secure" or "search-and-destroy" operations. During the first six months of 1966 Army units engaged in over 350 battalion-sized operations with code names like "Masher," "Jim Bowie," and "Birmingham." For their "exceptionally fine weather support" during Operation Attleboro, which commenced in September 1966, the deputy commanding general of the 1st Infantry Division, in an unusual display of gratitude, personally awarded the Bronze Star Medal to each of the eighteen weathermen from the AWS unit supporting it, and one weather observer serving with it on temporary duty from another 1st Weather Wing unit.



Members of Operating Location 1, Detachment 32, 5th Weather Squadron, after being presented the Bronze Star Medal by Brigadier General James F. Hollingsworth, deputy commanding general of the 1st Infantry Division. Front, left to right: SSgt Lewis P. Gibson and SSgt Orland H. Taylor. In the back row, left to right, are: TSgt John W. Ashworth, A1C James R. Abbott, A2C John R. Bamrick, and TSgt Raymond L. Stolarski. OL 1 was at Phu Loi, RVN.



At Detachment 32, 5th Weather Squadron, Long Binh, in 1968, are, left to right: Capt Daniel R. Gornell, detachment commander, Col Ralph G. Suggs, AWS vice commander, Col Joseph M. Bird, 1st Weather Wing vice commander, Col C. John Loisel, 1st Weather Group vice commander, and Lt Col William E. Cummins, II, 5th Weather Squadron commander.

Capt Gornell, staff weather officer to USARV's II Field Force, discussed the operations of his seventy-man detachment. In addition to II Field Force headquarters, this unit supported an airmobile division, three infantry divisions, and the 11th Armored Cavalry Regiment.

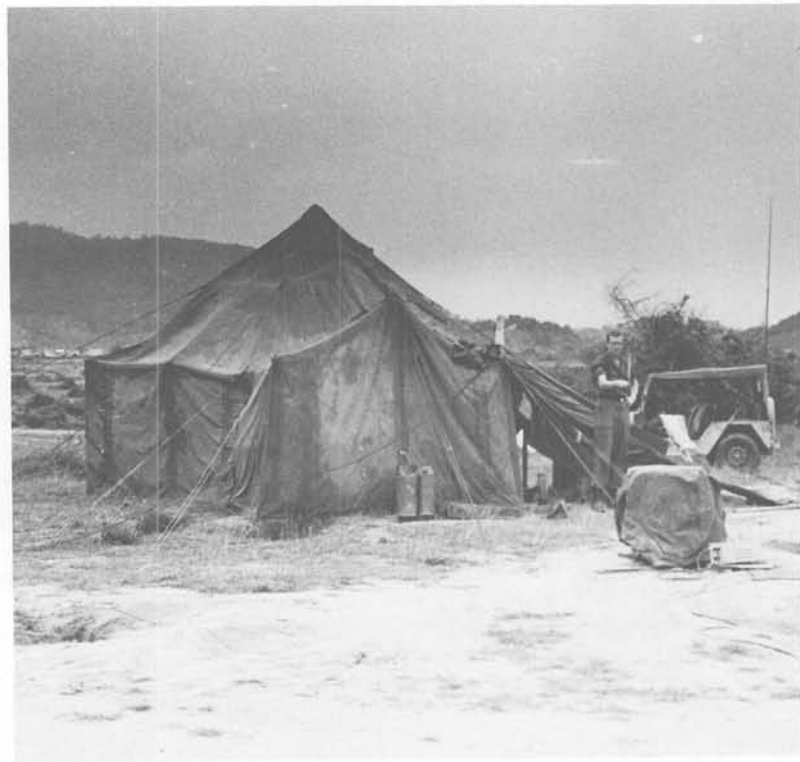


As part of Colonel Suggs' visit to 5th Weather Squadron units, his party toured a mock Viet Cong village behind USARV headquarters. Captured Russian 37MM anti-aircraft gun, 122MM rocket, 140MM rocket launcher, and a Chicom 12.7MM machine gun employed by the North Vietnamese and Viet Cong were displayed.





Above, Army CH-47 "Chinooks" at An Khe. Below, A1C Hallett Allen slings a psychrometer outside a tent used as Detachment 24's representative observing site at An Khe. The tent was also his home.



Army Chinook helicopter lifting large CPS-9 weather radar antenna from tower near the Tan Son Nhut flight line. It was replaced with smaller AN/FPS-103 radar.



Below: Sgt Paul Levasseur makes a final adjustment prior to installing a component of the FPS-103 radar at Detachment 7, 5th Weather Squadron, at Soc Trang. (1969)





1/Lt Dean Forseth, commander of Detachment 7, with Army WO Robert Lewis, whose UH-1B helicopter was serviced and rearmed for return to the mission area.

Detachment 11 of the 5th Weather Squadron was also located in the Mekong Delta, at Vinh Long. In the spring of 1967, the detachment, commanded by Capt John L. Conley, gave more than weather support. The 9th ARVN Division, supported by the 13th Aviation Brigade, engaged two Viet Cong battalions in Vinh Long Province. The captain and three of his weathermen, TSgt Ken Bates, A1C William Roche, and A1C Nicky Underwood, volunteered as extra help in the ammunition supply point.

For ten hours they helped assemble high explosive rockets and carried them to the helicopters. They also assisted in evacuating casualties from the helicopters to the dispensary.



Weather observers at 9th Infantry Division headquarters, Dong Tam, RVN, ready pilot balloon for launching.

Right: Sgt Bo N.S. Tunestam transmits weather information to a U.S. Army O-1 Bird Dog pilot landing at Dong Tam air-strip.



A1C John W. Lewis, a weather equipment repairman with Operating Location 3, 5th Weather Squadron, Dong Tam, hooks up a ground trap to a lightning rod on the weather station's wind recorder. Lewis was responsible for maintaining all the location's weather equipment at the 9th Infantry Division headquarters, and a field mobile unit at Tan An.



Sgt Tunestam, weather observer at Dong Tam, taking an observation from the tower.



Representative observing site tower at Dong Tam built by Combat Weather Team 2, Operating Location 3, Detachment 32, 5th Weather Squadron. The tower received moderate damage by mortar attack in February 1968.



At Vung Tau, RVN, Det 8, 5th Weather Squadron, provided observations and forecasts to meet operational requirements of several types of Vung Tau-based aircraft: the CH-47 Chinook and UH-1B Iroquois helicopters, the OV-1 Mohawk surveillance aircraft, and CV-2 Caribou transports.



Mohawk



Iroquois



Caribou



A1C William H. Arend, weather observer inside the base weather station. Vung Tau housed units of the U.S. Army, a small U.S. Air

Force contingent, and units of the Royal Australian Air Force and Army.

Precipitation studies by Det 8 were used by Army engineers for planning construction projects. One such study was used in a base drainage project and another, which included wind and temperature data, aided in a base expansion program.



An officer of the 1st Cavalry Division gets the weather information at Camp Gorvan, Republic of Vietnam, relative to his intended area of operations.

An Army jeep became a mobile office for AWS weathermen taking observations and relaying them by radio in support of the 1st Cavalry Division in 1969.

As a brigade commander with the 1st Cavalry put it: "We fight three things, the enemy, the terrain and the weather, and the 5th Weather Squadron provides us with the answers about the weather."





Above left, Capt Thomas E. Taylor, commander, Operating Location 2, Det 31, 5th Weather Squadron, supporting the 1st Cavalry Division. Right, Air Force Sgt Michael Connell checks hourly weather log, while Sgt Bernard Brezee relays data to unit headquarters, at Phuoc Vinh, 1st Cavalry Division base camp. Below, reading the sling psychrometer and passing the humidity back to the base camp in support of the 1st Cavalry.



Preparing a weather chart for use in twice-a-day briefings to the commanding general, 1st Cavalry Division, in 1969, is TSgt John R. Fix, of an operating location of the 5th Weather Squadron, at Phuoc Vinh, RVN.



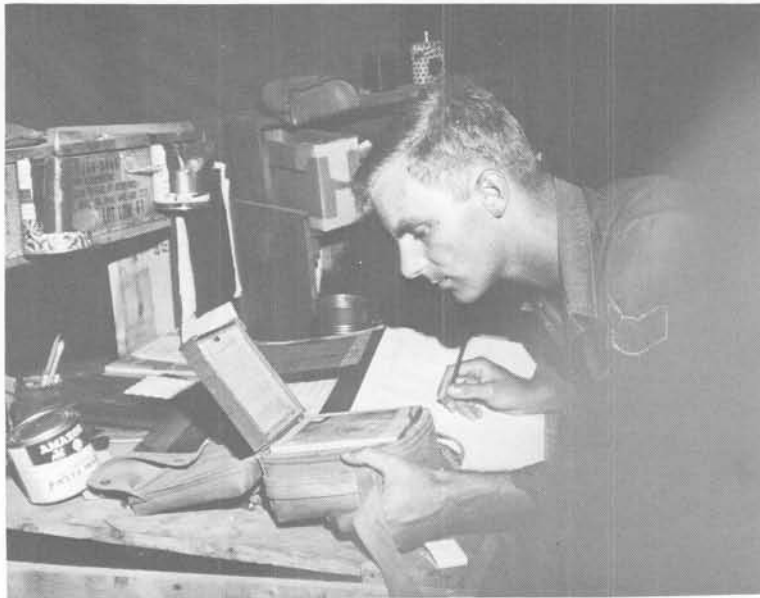
At the same base Sgt Stanley Dzula stands atop a mobile weather station near the flight line to tighten the guide wires supporting wind measuring gear, as the sun disappears behind a cloud.



Sgt Michael Connell, combat weather team chief of an operating location of the 5th Weather Squadron, at Phuoc Vinh. When asked how it felt, being stationed with the 1st Cavalry in Vietnam, he was quoted as saying, "We get a very deep sense of satisfaction working with the 'Cav,' because it is a division noted for its success against the enemy, and the information we obtain and pass on plays a vital role in the planning of each operation."



With the 1st Cavalry Division's 2d Brigade at Phuoc Vinh in September 1970, Sgt Ralph T. Wilson, a weather observer with the 5th Weather Squadron's Operating Location B, twirls a sling psychrometer, left, and examines his rain gauge, right. In the background are Viet Cong weapons captured by the brigade.



Also supporting the 1st Cavalry is a 5th Weather Squadron observer, reading an aneroid barometer by candlelight and preparing an official surface weather observation.



"Our men wear the patches of the Army units we support," Lt Colonel William E. Cummins II, 5th Weather Squadron commander and U.S. Army Republic of Vietnam staff weather officer said.

"We live with them, eat with them, and if there's some trouble we fight with them."

There was either a one, two or three-man weather observing team per Army brigade in Vietnam. The teams usually worked near Army air fields, either in a control tower or one of their specially-made weather vans.

Essential tasks performed by the AWS weathermen in Southeast Asia included making weather observations; receiving pilot reports (PIREPS) on weather conditions; providing observed weather conditions to pilots via pilot-to-forecaster service (PFSV) radio channels; and preparing official forecasts.

The weather equipment used included the readily recognizable anemometer and related wind-measuring gear; the theodolite; weather radar; and the rotating-beam ceilometer.

One piece of equipment that proved unsuitable, however, for use in Vietnam, was the AN/MMQ-2 tactical weather observing van and its components. It suffered from the unstable power sources there and was too sophisticated to maintain in combat. Another drawback was that the 10,000-pound, air-conditioned van, although "transportable" in theory, was a burden in a busy combat theater since it required the assistance of either an M-35 truck, a C-130, or a "Flying Crane" to transport it. After three years of service most of the vans, including sixteen with the 5th Weather Squadron, were withdrawn from the theater and efforts were made to obtain less-sophisticated observing gear.



AN/MMQ-2 meteorological van being moved by an Army CH-54 "Flying Crane," from Tan Son Nhut to Long Giao.



A/1C Peter T. Cromwell (left) and Sgt Angelo Marinosci, from 5th Weather Squadron's Combat Weather Team 1, pose with weapons in front of the AN/MMQ-2 met van in place at Long Giao AI, RVN, 1968. The van is bunkered and located adjacent to the weather team "hootch" to take advantage of the van's air conditioning. Long Giao was the home of the 11th Armored Cavalry Regiment.

The lower photo shows the weather station and van, also temperature dew-point, wind and cloud height measuring sets in place.





Sgt Vernon J. Rhodes, in the observation dome, and team chief SSgt Hans D. Fecke, man the meteorological van at Di An. (Combat Weather Team 2, Det 32, 5th Weather Squadron.) The team provided support to the 2d Brigade, 1st Infantry Division. The van was protected by sand-filled oil drums.

Below, team members discuss the operation of the TMQ-20 temperature dew-point measuring set with Colonels Suggs and Loisel.

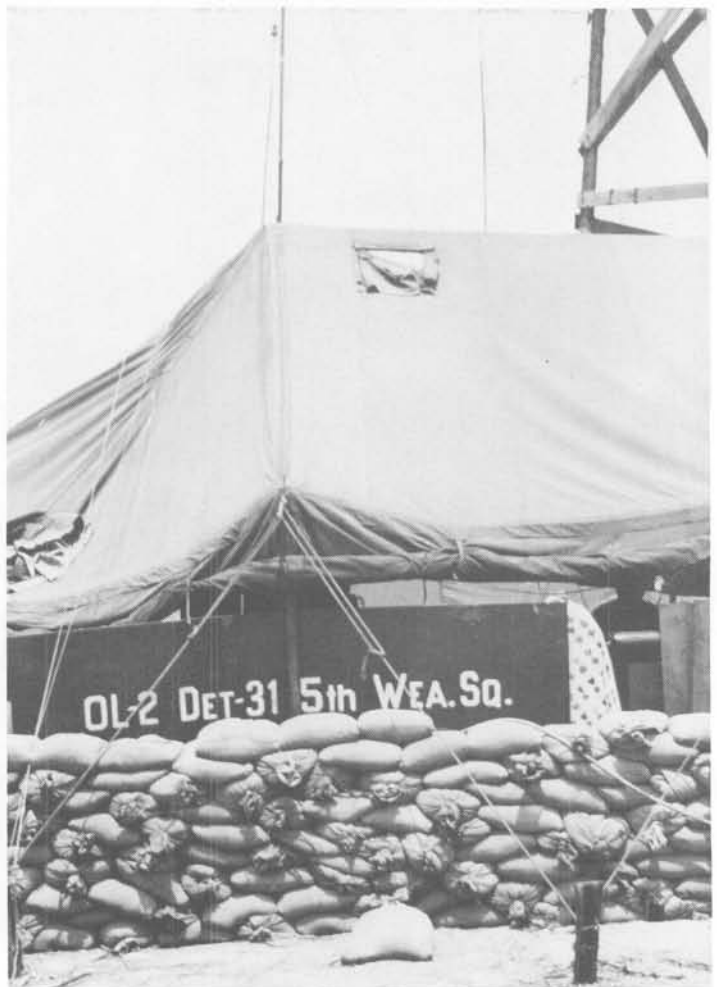




Above, OL 4, Det 32, 5th Weather Squadron, weather station at Camp Eagle. In the background are revetments around aircraft.

Right, weather station at Camp Evans. Camp Eagle and Camp Evans were both in I ARVN Corps, just south of the DMZ.

Bunker construction and sandbagging of quarters was the order of the day for the highly mobile weather teams.





Living and working conditions of a 5th Weather Squadron weather observing team in Vietnam, supporting USARV, 1967.





At Dak To, RVN, December 1967, Sgt Walker distributed Christmas gifts to front line, above. Below, while barbecue preparations were underway, Col Suggs studied a sign that was supposed to protect the temperature/humidity equipment from would-be tamperers: "Warning, Meteorological and Atmospheric sampling, sensing and measuring instrumentation site. This device contains background radiation and touching or tampering may result in severe tissue damage, including STERILITY."





At Camp McDermott, Nha Trang, MSgt James W. Kelley, Det 31, 5th Weather Squadron, shows Army Green Beret SP/6 Mickey Dinkins, 5th Special Forces Group (Airborne), the uses of a tool from an AN/PMQ-9 weather kit, and, lower right, they examine a cloud chart. In the background are sandbagged artillery emplacements and the concertina-wired camp perimeter. The sign behind the emplacement reads, "Happiness Is Shooting Direct Fire!!"

MSgt John F. Sweeney, chief observer at OL 3, 5th Weather Squadron, Phu Loi Airfield, reinforcing his bunker.



Lt Col William H. Shivar, at right, 5th Weather Squadron commander, at Landing Zone Baldy, visiting Sgts Alton J. Keel and Gary R. Nunn who were combat weather team members of OL 6, Det 31.

The weather observer teams proved their worth in numerous operations in Vietnam, providing vital weather data to enable Army commanders to take advantage of favorable weather and minimize the disadvantages of bad weather.



*Life with the Army,
however, was hazardous.*

*At left, and below,
shrapnel and rocket damage
to weather room, Combat
Weather Team 3, OL 2, Det 32,
Dau Tieng, 7 March 1968.*

*The weather station,
tower complex, and weather
living area, all located
in an abandoned villa, took
three direct hits when Dau
Tieng received mixed 122MM
rocket and mortar fire.*

*Bottom, rocket damage
to weather tent, Combat
Weather Team 1, OL 4, Det 31,*

*5th Weather Squadron,
Dak To, 13 March 1968.*

*Four weathermen were
killed in action--all by
enemy attacks in March
1968:*

*SSgt James C. Swann and
Sgt Edward W. Milan, of
Det 10, 5th Weather Sq,
Ban Me Thout AAF, RVN;
A1C Kenneth E. Baker, Jr,
Det 13, 30th Weather Sq,
Binh Thuy AB, RVN;
SSgt Eduardo Garcia, Jr,
OL 6, Det 31, 5th
Weather Sq, was
killed by ambush near
L. Z. Baldy, RVN.*

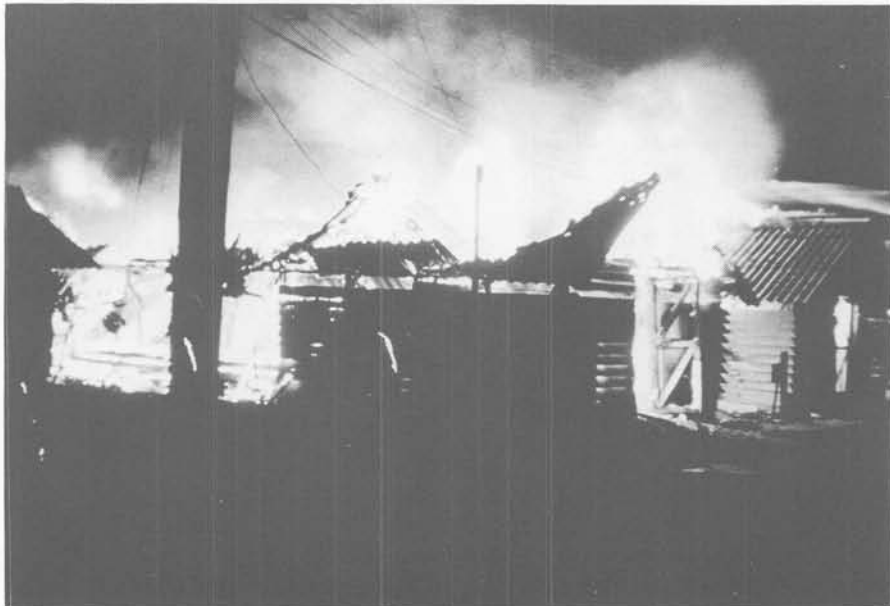




Enemy damage at Bien Hoa AB in 1968. Above, VNAF bomb dump totally destroyed.

Right, new bunker hit by rocket.

Below, burning Bien Hoa officers' club.





Above, Tuy Hoa AB, RVN, 29 July 1968, after attack which destroyed three HC-130Ps and severely damaged two other 130s, an F-100 and a C-47. Below, fighting the resulting fires. In the upper photograph can be seen the coastline of the South China Sea.



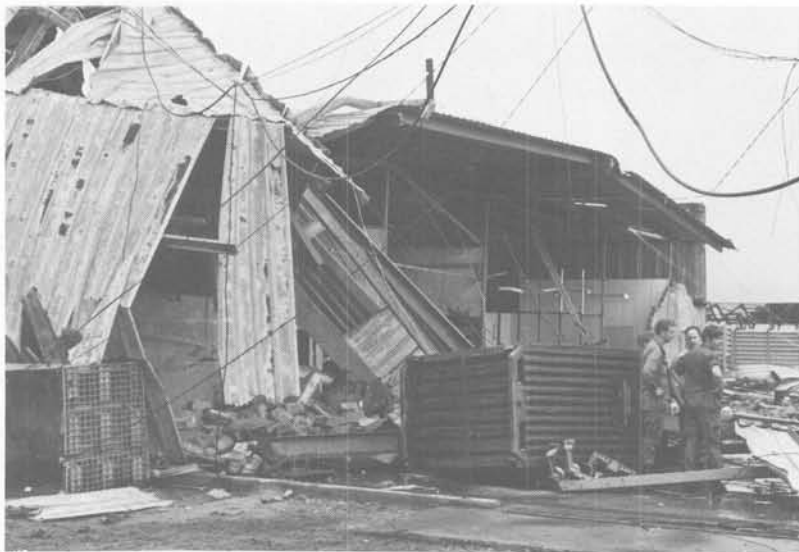


*Dumping sand
on last flare-up
of burning fuel
tank.*

*Intense heat buckled
and melted aluminum revet-
ment floor. Engine, pro-
peller, right aileron and
refueling pod were sal-
vaged.*

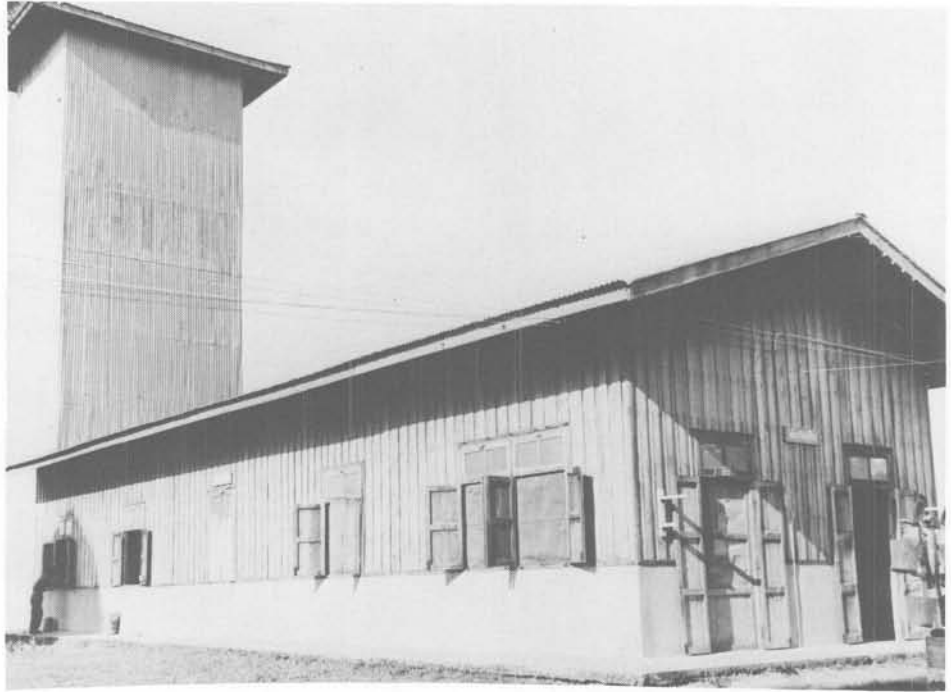
*Below, engines, pro-
pellers, outer wing panel,
ailerons, refueling pods,
and tail surfaces were
salvaged.*





Damage at Chu Lai Army Installation, RVN, caused by Typhoon Hester, 23 October 1971. Operating Location E of the 5th Weather Squadron supported the 23d Infantry Division there until its inactivation effective 1 December 1971.

10th Weather Squadron



Combined RTAF weather station-parachute building, Korat, Thailand.



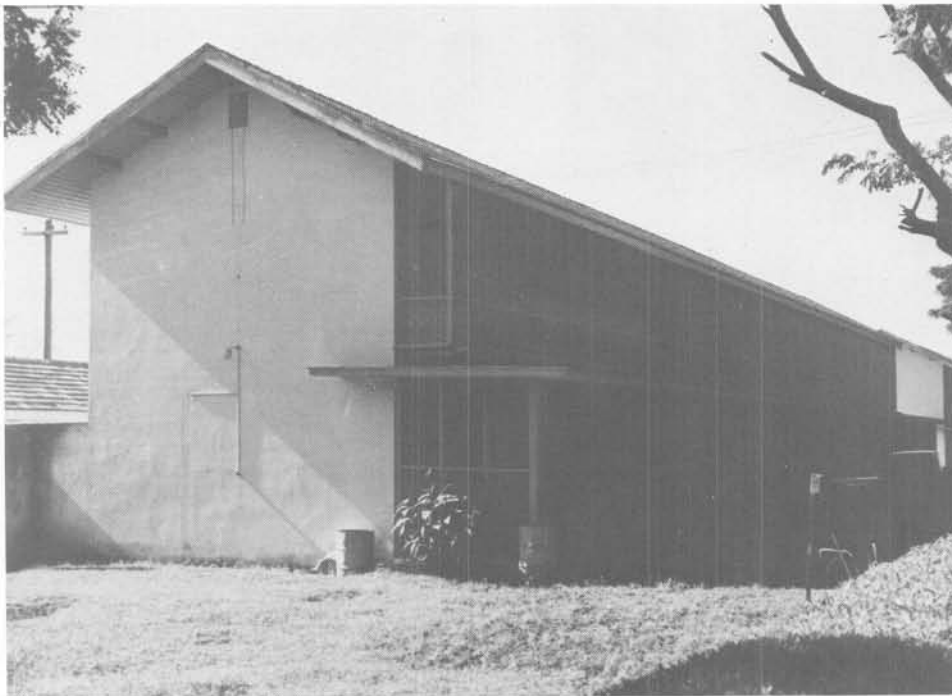
RTAF and USAF forecasters discuss weather chart, Detachment 16, 10th Weather Squadron, Korat AB.



Lower right, USAF forecaster monitoring RTAF observer plotting chart, Korat AB.



At Don Muang Airport, Bangkok, Thailand, above, RTAF forecaster preparing a flight cross section, and below, the living quarters for U.S. personnel.



Detachment 17, Ubon RTAFB, upper air section. The building and land belonged to the Thai Department of Meteorology. AWS installed all reconditioned equipment in August and September 1967.

Right, erecting plastic dome for AN/GMD-1 rawinsonde transmitter and receiver.



Det 17's maintenance section occupied the second floor. USAF-Thai observers jointly participated in four rawinsonde runs daily.

Det 17 was assigned to 10th Weather Squadron from 8 July 1966 to 20 August 1974.





Above, adjusting AN/GMQ-13 rotating beam ceilometer at U-Tapao RTNAS, Thailand, in 1969, are Sgts Raymond J. Metzge (left) and Robert W. Stalker from Det 30 of the 10th Weather Squadron. In background is SACB-52 on landing roll. Below, wind information from Pibals launched at this site at U-Tapao helped in the preparation of ballistic winds forecasts for C-130 airdrops over neighboring Cambodia.





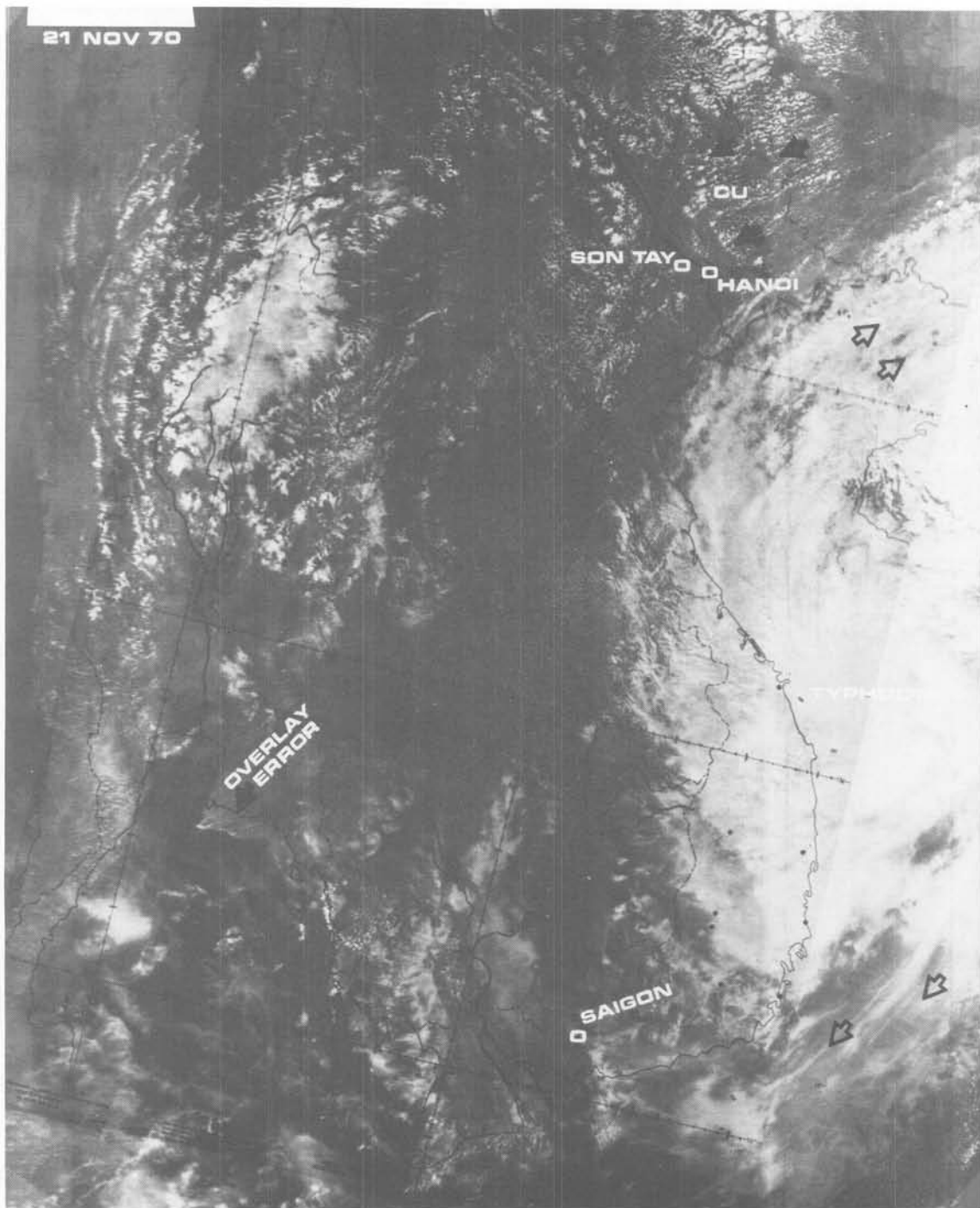
The United States Support Advisory Group/Seventh Air Force (USSAG/7AF) compound, Nakhon Phanom Airbase, Thailand, 1975. The 10th Weather Squadron headquarters was moved from Udorn to Nakhon Phanom in February 1974. Below, the 10th Weather Squadron's Detachment 15 (the base weather station) at Udorn, 1975.





Defense Meteorological Satellite Program (DMSP) Site XXIII at Nakhon Phanom, 1975, provided the satellite pictures for weather support of the Saigon and Phnom Penh evacuations and the recovery of the Mayaguez. The satellite photos were especially important because of the absence of weather observations from Cambodia and South Vietnam.





DMSP satellite photo of weather during the famous raid on the prisoner of war camp in Son Tay, North Vietnam.

Son Tay Prison Raid

A small U.S. force made a daring night raid on the prisoner of war camp at Son Tay, North Vietnam, the night of 20-21 November 1970. The force was a combined effort of Army special forces airlifted in Air Force helicopters, accompanied by Air Force C-130s, A-1s, F-4s, and F-105s, and assisted by a Navy air diversion near Haiphong. The date was determined by extensive climatological investigation by Major Keith R. Grimes, and through forecasts prepared by AWS personnel.

Air Force Brigadier General Leroy J. Manor, overall raid commander, wrote later that "as far as tactical considerations were concerned, weather was probably the most critical factor." Planning for the raid began with a feasibility study in June, followed by detailed specific operations and training plans. Training was intense. The plan was rehearsed over 100 times. During the raid, when ground forces broke open the cells, they found no prisoners.



Son Tay raiders in training at Eglin AFB, 1970. In photograph at upper right is Major Keith Grimes (center).



*Operation Homecoming
(12 February - 29
March 1973)*

Prisoners of war leaving bus at Gia Lam Airport, Hanoi, being escorted to, and boarding aircraft. Special weather support was provided Operation Homecoming by 1st Weather Wing units through coordination with Air Force Global Weather Central and the 22d Air Force weather support unit. Weather briefings were provided for each flight into Hanoi and for follow-on flights home. A close weather watch was maintained. The first flight was delayed two hours because of inclement weather in the Hanoi area.

Withdrawal

During the first half of 1975, 10th Weather Squadron provided weather support to three major contingencies: the evacuation of United States citizens and other nationals from Phnom Penh, code named Eagle Pull, from Saigon, code named Frequent Wind, and the recapture of the *S. S. Mayaguez*. Throughout each contingency, squadron personnel furnished essential weather information to those directing U.S. operations in theater. The DMSP site at Nakhon Phanom helped by making weather satellite coverage available.

Just prior to the fall of South Vietnam, MAC aircraft evacuated 50,493 refugees from Saigon to safe haven bases in the Pacific under Operation New Life. Operation Baby-lift was the air evacuation of Vietnamese and Cambodian orphans from theater to west coast locations stateside.



During Operation Babylift, 1st Weather Wing wives volunteered to help care for the tiny travelers. They worked many days to clean, clothe and feed the infants. Carole Woods (wife of Lt Colonel Harold D. Woods) leads the way from Hickam AFB terminal to a waiting plane and new parents, homes, and lives in the states.



Above, Honolulu International Airport during the stopover of babies and other refugees from Southeast Asia. Members and dependents of the 1st Weather Wing, Hickam AFB, gave a hand. At Guam, refugees got the same type aid from members and dependents of Detachment 2, 1st Weather Wing. Below, Vietnamese refugees departing a C-141 at Travis AFB. Operation New Life was one of the most massive airlifts the world had seen.





Above, Americans and their Vietnamese dependents beside the C-130 which evacuated them from South Vietnam. Below, HH-53 crews and other personnel at Ubon just prior to Eagle Pull.





Evacuees from Phnom Penh arrive at U-Tapao on 12 April 1975 during Operation Eagle Pull. Below shows Ambassador John Gunther Dean arriving, with the embassy's flag under his arm, during the evacuation of key American and other personnel.

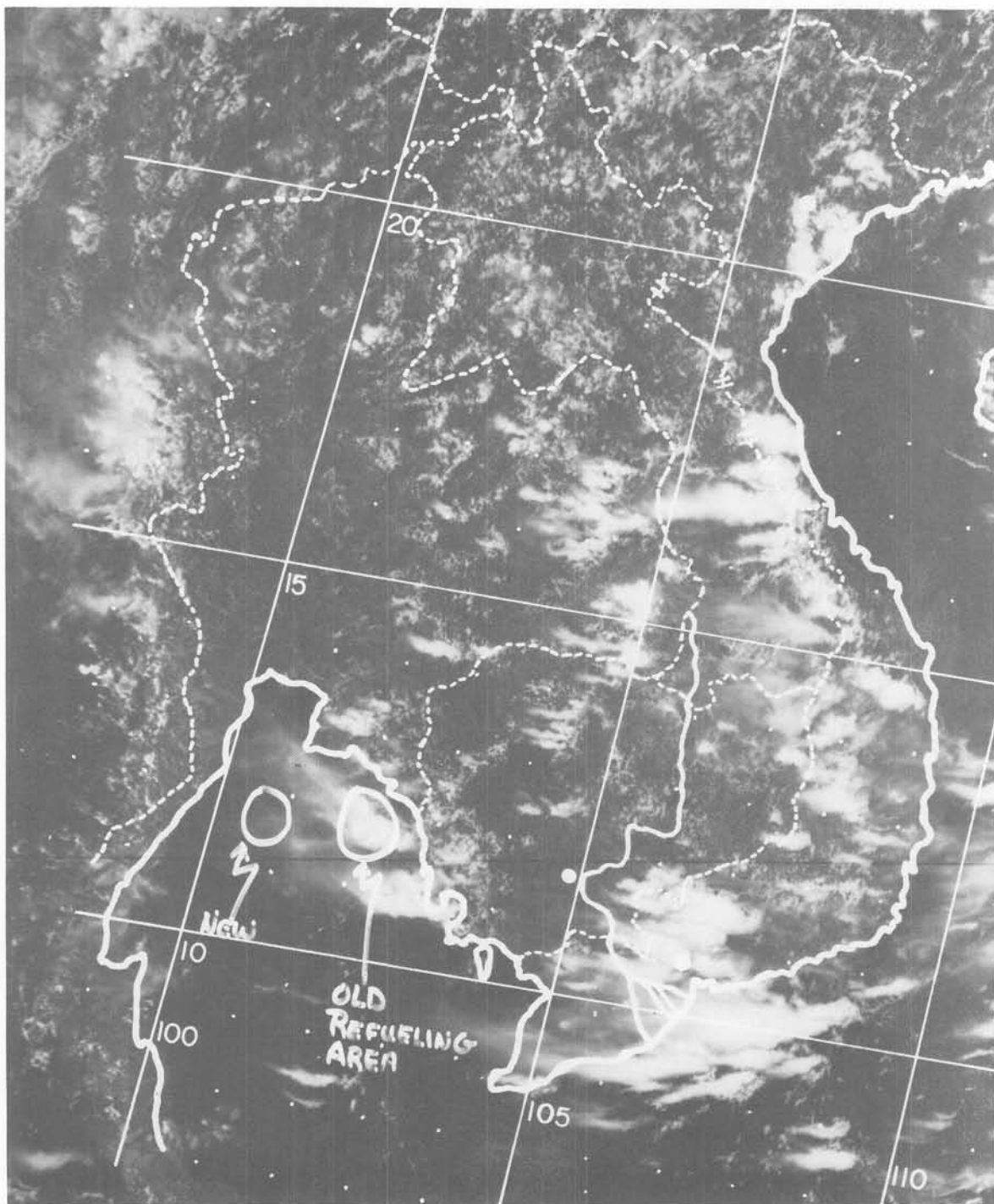


On 12 May 1975, the *S.S. Mayaguez*, a United States vessel, approaching Sattahip, Thailand, was seized by the Khmer Rouge, and towed to Koh Tang, an island about thirty miles from Sihanoukville. The destroyers *Holt* and *Wilson*, and the carrier *Coral Sea*, were ordered to the Gulf of Siam, and Marines were moved to U-Tapao. The 10th Weather Squadron supplied weather information, including weather satellite photographs, for the USSAG/7AF planning sessions. On the 15th a Marine force boarded the *Mayaguez*, while another force assaulted Koh Tang. The Air Force and Navy provided support, including air refueling and fire power. The *Mayaguez* was recovered and its crew returned. The Air Force and Marines suffered many casualties and lost five helicopters.



Above, Marines debarking a CH-53 on Koh Tang. Right, the Mayaguez under tow by the Holt from hostile waters near Koh Tang, 15 May 1975.





DMSF photograph read out at Nakhon Phanom 14 May 1975, depicting new air refueling area after cirrus was found in original area selected. No refueling was missed. The 381 mid-air refuelings during the Mayaguez incident represented 49 tanker sorties, offloading some 3,700,000 pounds of jet fuel.



A DMSP photograph read out at Nakhon Phanom on 15 May, 1975, verifying the absence of significant weather between Koh Tang and Thailand near the coast, for returning battle-damaged helicopters.



The AN/FPS-41 weather radar at Udorn (top photograph) was left by AWS for purchase by the Royal Thai Air Force through the military assistance program, while the APT weather satellite readout gear at U-Tapao (bottom photograph) was removed.



Above, weather facsimile equipment at Korat base weather station, and left, lowering radome of an AN/FPS-103 radar at U-Tapao in May 1975. Below, loading DMSP readout van aboard a C-5A at Nakhon Phanom in September 1975. All Air Force weather teletype and facsimile equipment was removed from Thailand as the weather stations closed.





Above: Sawadee (farewell) party given by Thai weathermen for members of Det 16 (formerly 10th Weather Squadron) upon its inactivation. Lt Watana Parnsri, standing at far left, the new commander of the Weather Branch, Wing III, Korat RTAFB; and seated, left, is Maj David Javier, Det 16 commander, center, guest speaker Lt Col Sommot Soontarawet, C/S, Wing III, RTAF, and right, TSgt Dennis Miranda, Jr, chief observer.

Below, left, Lt Col Earl E. Sands, commander of 1st Weather Wing's Det 30 at U-Tapao, reading farewell message from AWS to Commander Li-ad Sungchaya, commander of the Royal Thai Navy Weather Division, in May 1976, and right, as Col Sands turned over the U-Tapao weather station. Lt Col Sands, the last permanently assigned AWS member in theater, departed Thailand 21 May 1976.



General Louis L. Wilson, Jr, Commander in Chief, Pacific Air Forces, in a letter dated 7 June 1976, to General Paul K. Carlton, Commander, Military Airlift Command, said,

The last Air Weather Service unit was recently closed at U-Tapao as a part of our withdrawal from Thailand. This event ended an era of outstanding weather support to the Pacific Air Forces in SEA, ranging from routine fixed base weather services to complex and often unique weather support to operational units in combat. In many instances, the success of these operations was dependent on the skill and hard work of dedicated Air Weather Service men and women who provided the advice upon which decisions were made.

Looking back at the history of your weather people in support of PACAF SEA operations during the last 14 years, there is no doubt that the Air Weather Service people deserve the highest praise for their accomplishments. Please pass on my congratulations for a job well done.

Glossary

AAF	Army Air Field
AB	Air Base
AFB	Air Force Base
AI	Army Installation
APT	Automatic Picture Transmission
ARVN	Army of Republic of Vietnam
AWS	Air Weather Service
BWS	base weather station
CA	California
CINCPAC	Commander in Chief, Pacific Command
CONUS	Continental United States
CWT	combat weather team
DAPP	Data Acquisition and Processing Program
DMSP	Defense Meteorological Satellite Program
DMZ	Demilitarized Zone
HI	Hawaii
IL	Illinois
KAF	Khmer Air Force
LZ	landing zone
MAC	Military Airlift Command
MACV	Military Assistance Command, Vietnam
MD	Maryland
NASA	National Aeronautics and Space Administration
NOAA	National Oceanic and Atmospheric Administration
OJT	on-the-job training
OL	Operating Location
PACAF	Pacific Air Forces
PFSV	Pilot-to-Forecaster Service
PI	Philippine Islands
PIBAL	pilot-balloon observation (winds aloft)
PIREP	pilot reports (inflight weather)
POW	prisoner of war
PR	Puerto Rico
ROS	representative observing site
RTAF	Royal Thai Air Force
RTAFB	Royal Thai Air Force Base
RTNAS	Royal Thai Naval Air Station
RVN	Republic of Vietnam
SAC	Strategic Air Command
SEA	Southeast Asia
SEATFC	Southeast Asia Tactical Forecast Center
SEATO	Southeast Asia Treaty Organization
SEA WECEN	Southeast Asia Joint Operations Center
SEAWECEN	Southeast Asia Weather Center
SWO	staff weather officer
TIROS	Television and Infrared Observing Satellite
USA	United States Army
USAF	United States Air Force
USARV	United States Army, Vietnam
USMACV	United States Military Assistance Command, Vietnam
USSAG/7AF	United States Support Advisory Group/7th Air Force
VNAF	Vietnam Air Force
WG	Weather Group
WS	Weather Squadron
WW	Weather Wing

Photo Credits

The Military Airlift Command historical office is indebted to the personnel of Aerospace Audio-visual Service, Aerospace Rescue and Recovery Service, Air Weather Service, and others, who took the pictures that found their way into this work. A few of the photographs belonged to individuals who kindly loaned them--Col Keith R. Grimes, SSgt Steven D. Roush, and Maj Raymond T. Yeatman. All of the photographs used are USAF photographs except the following: p. 1 (top photo), pp. 3, 33-35, 36 (top and lower right photos), pp. 37-38, 41, 42 (top left and lower photos), and p. 112, Col Grimes; p. 2 (lower photo), and pp. 39-40, SSgt Roush; and p. 109 (top photo), Maj Yeatman.

Killed in Action

4 March 1968:

SSgt James C. Swann Detachment 10, 5th Weather Squadron
Ban Me Thout AAF, RVN

Sgt Edward W. Milan Detachment 10, 5th Weather Squadron
Ban Me Thout AAF, RVN

18 March 1968:

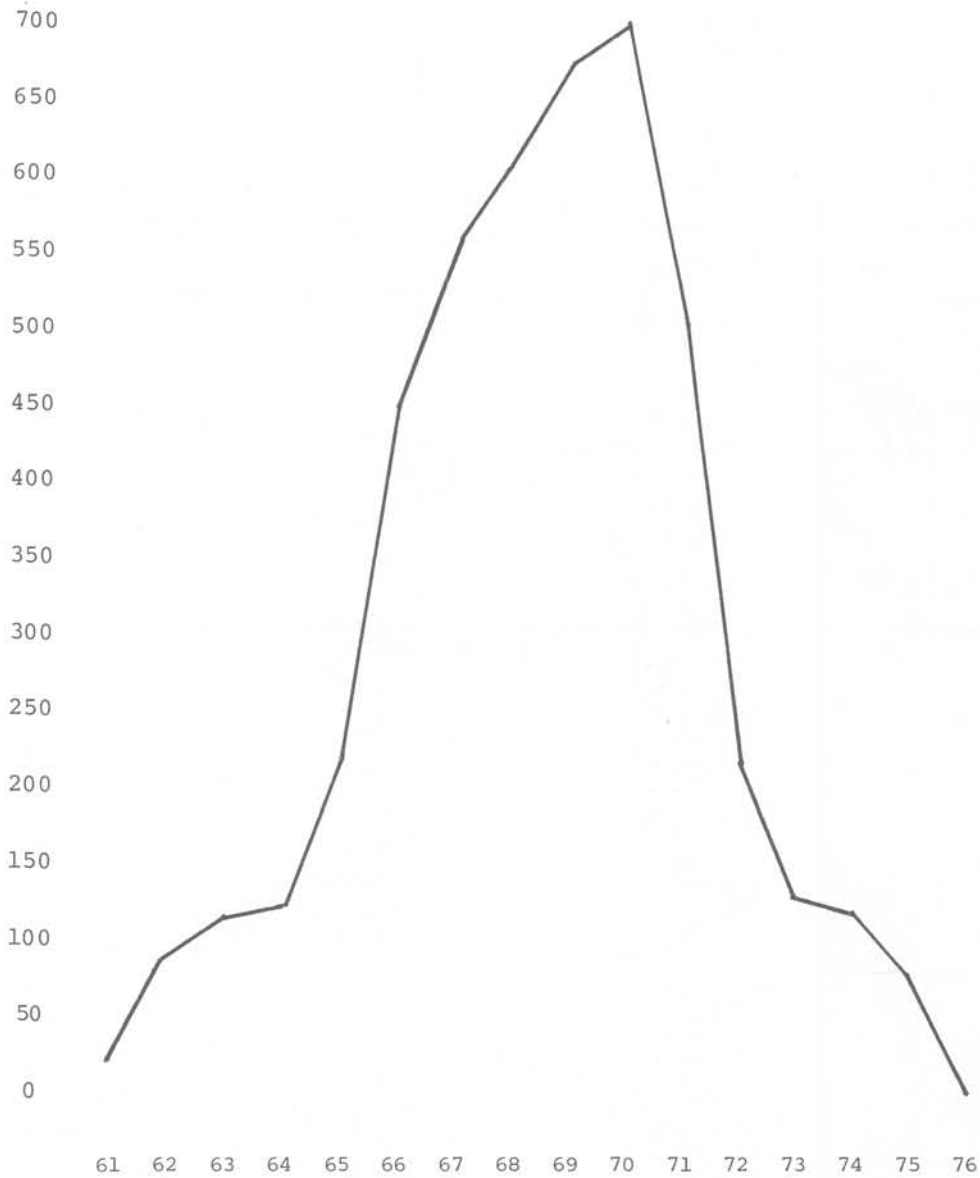
SSgt Eduardo Garcia, Jr CWT #2, OL 6, Det 31,
5th Weather Squadron
L. Z. Baldy, RVN

22 March 1968:

A1C Kenneth E. Baker, Jr Detachment 13, 30th Weather Squadron
Binh Thuy AB, RVN

AWS Personnel in Southeast Asia

1961 - 1976



Manning figures are for 30Jun/1Jul except: 31Dec61; 31Jul69; and 31Mar70.

Figures are assigned personnel, except for 1962-65, where only authorized figures were available.

AWS Unit Commanders in Southeast Asia

Weather Squadron Provisional (1st)
Saigon/Cholon, RVN: (25May-8Nov62) Lt Col Chandler R. Brown

30th Weather Squadron
Tan Son Nhut, RVN: (8Nov62-1Jul71)

8 Nov62	Lt Col Chandler R. Brown	12Aug66	Maj Allan B. Milloy
31Dec63	Lt Col Lewis L. Howes	5 Sep66	Lt Col George B. Skinner
28Mar64	Lt Col Hal R. Montague	14Aug67	Lt Col Gordon W. Schmal
16Apr64	Lt Col Thomas W. Lane	8 Aug68	Lt Col Roy A. Wegener
21Mar65	Col Alexander Kouts	29Jul69	Lt Col Edward R. Dvorak
21Mar66	Col Lewis J. Neyland	2 Apr70	Lt Col Norman J. Clark
6 Jul66	Lt Col Edward T. Badger	1 Jul70	Lt Col Alfred C. Molla, Jr
		1 Aug70	Lt Col Joseph D. Saccone

1st Weather Group
Tan Son Nhut, RVN: (8Jul66-30Jun72)

8 Jul66	Col Lewis J. Neyland	7 Jan70	Col Leonard E. Zapinski
1 Mar67	Col Robert B. Hughes	16Dec70	Col Wilson V. Palmore
22Jul67	Col Edwin E. Carmell	20Mar71	Col Mortimer F. Bennet
14Jan68	Col Griffin H. Wood	2 Dec71	Col Boyce M. Smith
12Jan69	Col Daniel B. Mitchell	22Jan72	Col Berry W. Rowe

5th Weather Squadron
Tan Son Nhut, RVN:* (8Jul66-1May72)

8 Jul66	Lt Col Ralph R. Ruyle, Jr	1 Oct69	Lt Col Loren L. Lorenzen
5 Aug66	Lt Col Richard C. Suehr	15Jul70	Lt Col Chester Lukasiewicz
8 Aug67	Lt Col William H. Shivar	1 Jul71	Lt Col Thomas A. Studer
8 Aug68	Lt Col William E. Cummins, II		

10th Weather Squadron
Udorn, Thailand:** (8Jul66-30Sep75)

8 Jul66	Lt Col James H. Gillard	1 Jul 71	Col Joseph K. Lambert
23Aug66	Lt Col Robert F. MacKenzie	1 Jul72	Col Berry W. Rowe
11Aug67	Lt Col Thomas L. Scanlon	20Nov72	Col Robert G. Mathers
26Jan68	Lt Col Arthur L. Warren	25Feb73	Col Patrick J. Breitling
1 Aug68	Lt Col Harry B. Vaughan	15Jul73	Col Arthur Bidner
26Jul69	Lt Col Herbert A. Million	7 Jul74	Lt Col Keith R. Grimes
19Jul70	Lt Col Albert J. Kaehn, Jr	15Jul75	Lt Col Earl E. Sands

* Moved to Long Binh AI, RVN, 3Aug67.

** Moved to Nakhon Phanom, Thailand, 18Feb74.

AWARDS

Republic of Vietnam Gallantry Cross with Palm

The award of the Republic of Vietnam Gallantry Cross with Palm for exceptionally meritorious service in support of military operations was confirmed for the following units during the periods indicated:

Hq 1st Weather Group	8Jul66 - 30Jun72
1st Weather Group, Det 22	1Jul71 - 11Mar72
5th Weather Squadron	8Jul66 - 1May72
5th Weather Sq, OL 2	21Feb70 - 28Feb71
5th Weather Sq, OL 4	1Sep68 - 30Sep70 *
5th Weather Sq, Det 32	12Jul65 - 16Oct68 **
" "	Dec65 - Aug68
" "	1Apr66 - 16Oct68
" "	1Dec66 - 30Jul68
" "	Jan69 - Jun69
" "	29Apr70 - 30Jun70
10th Weather Squadron	8Jul66 - 28Jan73
10th Weather Sq, Det 25	22Oct68 - 30Jun70
30th Weather Squadron	1Apr66 - 1Jul71

Presidential Unit Citation

10th Weather Sq, Det 12	11Aug67 - 12Aug67
" "	24Oct67 - 28Oct67
10th Weather Sq, Det 16	10Mar67 - 1May67
10th Weather Sq, Det 17	1Mar67 - 31Mar68
10th Weather Sq, Det 25	1Nov68 - 1May69
30th Weather Squadron	5Dec64
30th Weather Sq, Det 3	6Mar68 - 31Jul69
30th Weather Sq, Det 4	21Jun68 - 30Jun69

Meritorious Unit Commendation (US Army)

5th Weather Sq, OL 4	Jan69 - Jun69 †
5th Weather Sq, Det 31	1Aug65 - 7Jul66 †
5th Weather Sq, Det 31, OL 2	1Feb67 - 31Jul68
5th Weather Sq, Det 32	1Nov69 - 1Mar71

Valorous Unit Award (US Army)

5th Weather Sq, OL 2	1May70 - 29Jun70
5th Weather Sq, Det 31	1Oct67 - 31Oct67

* Award period was 1Sep68-30Sep70. OL 4, 5th Weather Squadron was activated at Cu Chi, RVN, 7Feb69, simultaneously with the in-activation of OL 2, Det 32, 5th Weather Squadron, at the same location. On 1Sep70, the designation of OL 4 was changed to OL C.

** Award periods were 12Jul65-16Oct68; 5Dec65-Aug68; and 1Apr66-16Oct68. Support was provided by 30th Weather Squadron units prior to 8Jul66, when Det 32, 5th Weather Squadron was activated.

† Award period was 1Aug65-7Jul66. Det 31, 5th Weather Squadron was activated 8Jul66, at Nha Trang. The unit preceding it was OL 1, Det 14, 30th Weather Squadron.

Republic of Vietnam Civil Actions Unit Citation

5th Weather Sq, OL 6	7Feb69 - 2May70*
5th Weather Sq, Det 32	19Dec66 - 28Jun69
"	Aug66 - 7Apr70

RVN First Class Civic Actions Honor Medal With Palm

30th Weather Sq, Det 13	1Jul68 - 1Jun69
-------------------------	-----------------

Air Force Outstanding Unit Awards

1st Weather Wing, Det 5	5Aug64 - 31Dec65
"	w/V 12Feb75 - 17May75
1st Weather Group	8Jul66 - 1Jul67
"	w/V 1Jan71 - 31Dec71
"	1Jul70 - 30Jun72
5th Weather Squadron	w/V 8Jul66 - 1Jul67
"	2Jul67 - 30Jun69
"	1Jul70 - 1May72
"	w/V 1Jan71 - 31Dec71
10th Weather Squadron	w/V 8Jul66 - 1Jul67
"	2Jul67 - 30Jun69
"	1Jul70 - 30Jun72
"	w/V 1Jan71 - 31Dec71
"	1Jul72 - 30Jun73
"	1Jul74 - 30Jun75
"	1Jul75 - 30Sep75
10th Weather Sq, Hq	1Jul72 - 30Jun73
"	1Jul74 - 30Jun75
10th Weather Sq, Det 16	1Jul66 - 30Jun67**
10th Weather Sq, Det 25	w/V 22Oct68 - 30Jun70
30th Weather Squadron	w/V 1May63 - 30Apr64
"	w/V 1May64 - 7Jul66
"	w/V 8Jul66 - 1Jul67
"	2Jul67 - 30Jun69
"	1Jul70 - 1Jul71
"	w/V 1Jan71 - 30Jun71
30th Weather Sq, Det 3	1May63 - 31Jul64
30th Weather Sq, Det 5	1May66 - 30Apr67
30th Weather Sq, Det 16	29Jun66 - 30Jun66
30th Weather Sq, Det 17	16Dec65 - 15Dec66
30th Weather Sq, Det 22	2Jul67 - 2Sep67

Williams Award

This AWS Commander's Award for the most outstanding weather detachment of the year was presented to detachments in Southeast Asia for 1967 and 1968:

1967 - Detachment 9, 30th Weather Sq, Da Nang AB, RVN
 1968 - Detachment 31, 5th Weather Sq, Nha Trang AI, RVN

* OL 6 was in existence, supporting the 101st Airborne Division at Camp Eagle and Fire Support Bases Anzio, Whip, Nuts, etc., in I Corps area, in a very mobile operation, on 1Jan69. Paperwork was slow, and the official order activating OL 6 of the 5th Weather Squadron at Camp Eagle was dated 8Sep69.

** Det 16, 10th Weather Sq activated 8Jul66, simultaneously with the inactivation of Det 16, 30th Weather Sq, same location.

Moorman Award

The AWS Commander's Award to the unit that provides centralized analysis and/or forecasts to other AWS units in a most outstanding manner was presented for 1966 to Detachment 14, 1st Weather Group for its outstanding operation of the Southeast Asia Tactical Forecast Center at Tan Son Nhut AB, RVN.

Vietnam Campaign Credits

The numerical code used for Vietnam campaigns:

56. Vietnam Advisory	15Nov61 - 1Mar65
57. Vietnam Defense	2Mar65 - 30Jan66
58. Vietnam Air	31Jan66 - 28Jun66
59. Vietnam Air Offensive	29Jun66 - 8Mar67
60. Vietnam Air Offensive, Phase II	9Mar67 - 31Mar68
61. Vietnam Air Offensive, Phase III	1Apr68 - 31Oct68
62. Vietnam Air/Ground	22Jan68 - 7Jul68
63. Vietnam Air Offensive, Phase IV	1Nov68 - 22Feb69
64. TET 69/Counteroffensive	23Feb69 - 8Jun69
65. Vietnam Summer-Fall 69	9Jun69 - 31Oct69
66. Vietnam Winter-Spring 70	1Nov69 - 30Apr70
67. Sanctuary Counteroffensive	1May70 - 30Jun70
68. Southwest Monsoon	1Jul70 - 30Nov70
69. Commando Hunt V	1Dec70 - 14May71
70. Commando Hunt VI	15May71 - 31Oct71
71. Commando Hunt VII	1Nov71 - 29Mar72
72. Vietnam Ceasefire	30Mar72 - 28Jan73

Vietnam Campaign Credits Awarded 1st Weather Wing Units:

1st Weather Group	63, 64, 65, 66, 67, 68, 69, 70, 71, 72
Hq, 1st Weather Gp	59, 60, 61, 62, 63, 66
5th Weather Squadron	59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
10th Weather Squadron	59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72
30th Weather Squadron	56, 57, 58, 61, 62, 63, 64, 65, 66, 67, 68, 69

GENEALOGY OF AWS UNITS IN SOUTHEAST ASIA *

1962 - 1976

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Tan Son Nhut, Vietnam</u>				
Det 20-1 Hq 1 WW	Hq 1 WW	1 Jan 62	Organized	AWS SOG-40, 27Dec61
		"	Amended to read Det 20, Hq 1 WW	AWS SOG-6, 27Feb62
Det 20	WSq Prov	1 Jul 62	Attached to Wea Sq Provisional (1st)	AWS SOG-25, 18Jun62
Det 20	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 50Oct62
Det 20	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 20	30 WS	"	Organized	"
30 WS	1 WW	"	Moved from Saigon/Cholon	MATS SOG-11, 23Jan63
Det 20	30 WS	1 Mar 63	Redesignated Det 2, 30 WS	AWS SOG-6, 19Feb63
1 WGP	1 WW	8 Jul 66	Activated	MAC SOG-108, 27Jun66
Hq	1 WGP	"	"	"
5 WS	1 WGP	"	"	"
Det 33	1 WGP	"	"	"
Det 34	1 WGP	"	"	"
30 WS	1 WGP	"	"	"
5 WS	1 WGP	"	30 WS reassigned to 1 WGP	"
Det 33	1 WGP	3 Aug 67	Moved to Long Binh	MAC SOG-151, 3Aug67
Det 14	1 WGP	15 Sep 67	Eliminated	MAC SOG-163, 5Sep67
Det 2	30 WS	5 Sep 67	Location moved from Saigon	"
Det 34	30 WS	1 Oct 70	Inactivated	MAC SOG-255, 3Sep70
		"	Inactivated (became IMS of Hq 1 WGP)	"
30 WS	1 WGP	1 Jul 71	Inactivated	MAC SOG-226, 26May71
Det 14	1 WGP	"	Inactivated	MAC SOG-229, 26May71
1 WGP	1 WW	30 Jun 72	Inactivated	MAC SOG-253, 30Jun72
Det 1	10 WS	"	Activated	"
Det 1	10 WS	3 Mar 73	Inactivated	MAC SOG-86, 12Feb73

* From cited orders. Official and common-use spellings of location names sometimes vary. Some effective dates differ from actual organizational action.

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Saigon/Cholon FMO, Vietnam</u>				
WSq Prov (1st)	1 WW	25 May 62	Organized	MATS SOG-55, 25May62
WSq Prov (1st)	1 WW	8 Nov 62	Discontinued	MATS SOG-129, 50Oct62
30 WS	1 WW	"	Activated	"
			Order amended moving 30 WS to Tan Son Nhut Aflld	MATS SOG-11, 23Jan63
Det 14	30 WS	10 Sep 64	Organized	MATS SOG-128, 27Aug64
Det 14	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 14	1 WGP	"	Organized	"
Det 14	1 WGP	5 Sep 67	Relocated to TSN	MAC SOG-163, 5Sep67
OL 2	Det 14, 1 WGP	18 Nov 67	Activated	MAC SOG-198, 13Nov67
OL 2	Det 14, 1 WGP	8 Apr 70	Inactivated	MAC SOG-51, 1Mar70
OL 4	1 WGP	"	Activated	"
OL 4	1 WGP	1 Sep 70	Redesignated OL C, 1 WGP	MAC SOG-228, 4Aug70
OL C	1 WGP	1 Jul 71	Inactivated	MAC SOG-172, 10May71

Bien Hoa Airfield, Vietnam

Det 20	Hq 1 WW	1 Jan 62	Organized	AWS SOG-40, 27Dec61
		"	Amended to Read Det 20-1	AWS SOG-6, 27Feb62
Det 20-1	WSq Prov (1st)	1 Jul 62	Attached to Wea Sq Prov (1st)	AWS SOG-25, 18Jun62
Det 20-1	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 50Oct62
Det 20-1	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 20-1	30 WS	"	Organized	"
Det 20-1	30 WS	1 Mar 63	Redesignated Det 3, 30 WS	AWS SOG-6, 19Feb63
Det 32	5 WS	8 Jul 66	Organized	MAC SOG-108, 27Jun66
Det 32	5 WS	29 Nov 66	Moved to Long Binh	MAC SOG-202, 29Nov66
OL 4	Det 32	1 May 68	Relocated (from Tay Ninh)	MAC SOG-79, 1May68
OL 4	Det 32	8 Dec 68	Inactivated	MAC SOG-310, 14Nov68

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Bien Hoa Airfield (Cont)</u>				
OL 1	Det 37, 5 WS	8 Dec 68	Activated	MAC SOG-310, 14Nov68
OL 1	Det 37, 5 WS	7 Feb 69	Inactivated	MAC SOG-23, 4Feb69
Det 3	30 WS	1 Jul 71	Redesignated OL G, 1 WGP	MAC SOG-277, 21Jun71
OL G	1 WGP	1 Dec 71	Inactivated	MAC SOG-443, 9Nov71
<u>Don Muang Airport, Bangkok, Thailand</u>				
Det 19	Hq 1 WW	1 Jan 62	Organized	AWS SOG-40, 27Dec61
Det 19	WSq Prov (1st)	1 Jul 62	Attached to Wea Sq Provisional (1st)	AWS SOG-25, 18Jun62
Det 19	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 50Oct62
Det 19	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 19	30 WS	"	Organized	"
Det 19	30 WS	1 Mar 63	Redesignated Det 1, 30 WS	AWS SOG-6, 19Feb63
Det 1	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 1	10 WS	"	Organized	"
Det 1	10 WS	8 Jan 69	Inactivated	MAC SOG-340, 16Dec68
OL 1	10 WS	"	Activated	"
OL 1	10 WS	1 Sep 70	Redesignated OL A, 10 WS	MAC SOG-228, 4Aug70
OL A	10 WS	1 Sep 74	Inactivated	MAC SOG-393, 29Jul74
<u>Nha Trang Airport, Vietnam</u>				
Det 20-2	Hq 1 WW	1 Jan 62	Organized	AWS SOG-6, 27Feb62
DET 20-2	WSq Prov (1st)	1 Jul 62	Attached to Wea Sq Prov (1st)	AWS SOG-25, 18Jun62
Det 20-2	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 50Oct62
Det 20-2	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 20-2	30 WS	"	Organized	"
Det 20-2	30 WS	1 Mar 63	Redesignated Det 4, 30 WS	AWS SOG-6, 19Feb63
OL 1	Det 14, 30 WS	25 Oct 65	Organized	MATS SOG-138, 19Oct65
OL 1	Det 14, 30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Nha Trang Airport (Cont)</u>				
OL 1	Det 14, 1 WGP	8 Jul 66	Organized	MAC SOG-108, 27Jun66
Det 31	5 WS	"	Organized	" "
OL 1	Det 14, 1 WGP	8 Apr 70	Inactivated	MAC SOG-51, 1Mar70
OL 3	1 WGP	"	Activated	" "
Det 4	30 WS, 1 WGP	1 Apr 70	Inactivated	MAC SOG-84, 26Mar70
OL 3	1 WGP	1 Sep 70	Redesignated OL B, 1 WGP	MAC SOG-228, 4Aug70
Det 31	5 WS	15 Apr 71	Inactivated	MAC SOG-104, 1Apr71
OL B	1 WGP	20 Apr 72	Inactivated	MAC SOG-111, 30Mar72
<u>Pleiku Airport, Vietnam</u>				
Det 20-3	1 WW	1 Jan 62	Organized	AWS SOG-6, 27Feb62
Det 20-3	WSq Prov (1st)	1 Jul 62	Attached to Wea Sq Prov	AWS SOG-25, 18Jun62
Det 20-3	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 5Oct62
Det 20-3	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 20-3	30 WS	"	Organized	" "
Det 20-3	30 WS	1 Mar 63	Redesignated Det 5, 30 WS	AWS SOG-6, 19Feb63
OL 4	Det 31, 5 WS	1 Oct 66	Organized	MAC SOG-161, 28Sep66
OL 4	Det 31, 5 WS	25 Jan 67	Moved to Dragon Mountain, V	MAC SOG-15, 25Jan67
Det 5	30 WS	31 Mar 71	Inactivated	MAC SOG-45, 19Feb71
<u>Da Nang Airport, Vietnam</u>				
Det 21	1 WW	1 Jan 62	Organized	AWS SOG-6, 27Feb62
Det 21	WSq Prov (1st)	1 Jul 62	Attached to Weq Sq Prov	AWS SOG-25, 18Jun62
Det 21	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 5Oct62
Det 21	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 21	30 WS	"	Organized	" "
Det 21	30 WS	1 Mar 63	Redesignated Det 9, 30 WS	AWS SOG-6, 27Feb62
OL 2	Det 14, 30 WS	25 Oct 65	Organized	MATS SOG-138, 19Oct65
OL 2	Det 14, 30 WS	1 Jul 66	Discontinued	MAC SOG-80, 22Apr66

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Da Nang Airport (Cont)</u>				
OL 1	Det 31, 5 WS	8 Jul 66	Organized	MAC SOG-108, 27Jun66
OL 1	Det 31, 5 WS	18 Apr 68	Eliminated	MAC SOG-50, 4Apr68
Det 9	30 WS	1 Jul 71	Redesignated Det 9, 1 WGP	MAC SOG-229, 26May71
Det 9	1 WGP	30 Jun 72	Redesignated OL D, Det 1, 10 WS	MAC SOG-253, 20Jun72
OL D	Det 1, 10 WS	6 Feb 73	Inactivated	MAC SOG-60, 1Feb73
<u>Qui Nhon AB, Vietnam</u>				
Det 20-4	1 WW	1 Jan 62	Organized	AWS SOG-6, 27Feb62
Det 20-4	WSq Prov (1st)	1 Jul 62	Attached to Wea Sq Prov (1st)	AWS SOG-25, 18Jun62
Det 20-4	Hq 1 WW	8 Nov 62	WSq Prov (1st) eliminated	MATS SOG-129, 50Oct62
Det 20-4	Hq 1 WW	"	Discontinued	AWS SOG-57, 24Oct62
Det 20-4	30 WS	"	Organized	"
Det 20-4	30 WS	1 Mar 63	Redesignated Det 6, 30 WS	AWS SOG-6, 19Feb63
Det 6	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 6	5 WS	"	Organized	"
Det 6	5 WS	1 Jul 71	Inactivated	MAC SOG-264, 16Jun71
<u>Soc Trang AB, Vietnam</u>				
Det 20-5	30 WS	15 Dec 62	Organized	AWS SOG-65, 3Dec62
Det 20-5	30 WS	20 Jan 63	Revoked by	AWS SOG-67, 14Dec62
Det 20-5	30 WS	1 Mar 63	Organized	AWS SOG-1, 4Jan63
Det 7	30 WS	8 Jul 66	Redesignated Det 7, 30 WS	AWS SOG-6, 19Feb63
Det 7	5 WS	"	Discontinued	MAC SOG-108, 27Jun66
Det 7	5 WS	1 Dec 70	Organized	"
Det 7	5 WS		Inactivated	MAC SOG-341, 16Nov70

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Vung Tau AB, Vietnam</u>				
Det 20-6	30 WS	15 Dec 62	Organized	AWS SOG-65, 3Dec62
			Revoked by	AWS SOG-65, 14Dec62
Det 20-6	30 WS	20 Jan 63	Organized	AWS SOG-1, 4Jan63
Det 20-6	30	1 Mar 63	Redesignated Det 8, 30 WS	AWS SOG-6, 19Feb63
Det 8	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 8	5 WS	"	Organized	"
Det 8	5 WS	1 Oct 70	Inactivated	MAC SOG-263, 4Sep70
<u>Takhli AB, Thailand</u>				
Det 12	30 WS	15 Feb 63	Organized	AWS SOG-4, 28Jan63
Det 12	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 12	10 WS	"	Organized	"
Det 12	10 WS	31 Dec 70	Inactivated	MAC SOG-341, 16Nov70
Provisional				
Det 12	10WS	1 Jun 72	Activated	MAC SOG-185, 22May 72
			Order downgraded to declassified, and rescinded by	(Classified)
Det 12	10 WS	1 Jul 72	Activated	MAC SOG-261, 23Jun72
Det 12	10 WS	15 Jul 74	Inactivated	"
				MAC SOG-323, 21Jun74
<u>Can Tho Airport, Vietnam</u>				
Det 13	30 WS	24 Sep 63	Organized	AWS SOG-45, 17Sep63
Det 13	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 12	1 WGP	15 Feb 72	Activated	MAC SOG-42, 11Feb72
Det 12	1 WGP	30 Jun 72	Redesignated OL C, Det 1, 10WS	MAC SOG-253, 20Jun72
OL C	Det 1, 10 WS	11 Feb 73	Inactivated	MAC SOG-66, 1Feb73
<u>Vinh Long City, Vietnam</u>				
Det 11	30 WS	1 Mar 64	Organized	MAGS SOG-21, 19Feb64
Det 11	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 11	5 WS	"	Organized	"
Det 11	5 WS	1 Mar 72	Inactivated	MAC SOG-42, 11Feb72

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Udorn Airfield, Thailand</u>				
Det 15	30 WS	10 Dec 64	Organized	MATS SOG-174, 19Nov64
10 WS	1 WGP	8 Jul 66	Organized	MAC SOG-108, 27Jun66
Det 15	30 WS	"	Discontinued	"
Det 15	10 WS	"	Organized	"
OL 2	1 WGP	15 Apr 67	Organized	MAC SOG-63, 28Mar67
		20 Mar 67	Date changed	MAC SOG-110, 5Jun67
OL 2	1 WGP	1 Sep 70	Redesignated OL A, 1 WGP	MAC SOG-228, 4Aug70
Det 15	10 WS	1 Jul 71	Inactivated	MAC SOG-229, 26May71
OL A	1 WGP	30 Jun 72	Inactivated	MAC SOG-253, 20Jun72
10 WS	1 WW	18 Feb 74	Moved to Nakhon Phanom	MAC SOG-80, 6Feb74
Det 15	10 WS	6 Feb 74	Activated	"
Det 15	10 WS	1 Sep 75	Inactivated	MAC SOG-407, 22Aug75
Det 15	1 WW	"	Activated	"
Det 15	1 WW	12 Jan 76	Inactivated	MAC SOG-556, 11Dec75
<u>Korat AB, Thailand</u>				
Det 16	30 WS	1 Jul 65	Organized	MATS SOG-43, 22Apr65
Det 16	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 16	10 WS	"	Organized	"
OL B	10 WS	1 Jun 72	Activated	MAC SOG-184, 22May72
OL B	10 WS	1 Dec 72	Inactivated	MAC SOG-627, 15Nov72
Det 16	10 WS	1 Sep 75	Inactivated	MAC SOG-407, 22Aug75
Det 16	1 WW	"	Activated	"
Det 16	1 WW	15 Jan 76	Inactivated	MAC SOG-556, 11Dec75
<u>Ubon Airfield, Thailand</u>				
Det 17	30 WS	1 Jul 65	Organized	MATS SOG-62, 25May65
Det 17	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 17	10 WS	"	Organized	"
Det 17	10 WS	20 Aug 74	Inactivated	MAC SOG-322, 21Jun74
OL B	10 WS	"	Activated	"
OL B	10 WS	30 Jun 75	Inactivated	MAC SOG-258, 16Jun75

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Phan Rang City, Vietnam</u>				
Det 22	30 WS	25 Oct 65	Organized	MATS SOG-138, 19Oct65
Det 22	30 WS	13 Jun 67	Location announced as Phan Rang AB	MAC SOG-117, 13Jun67
Det 22	30 WS	1 Jul 71	Redesignated Det 22, 1 WGP	MAC SOG-229, 26May71
Det 22	1 WGP	15 Mar 72	Inactivated	MAC SOG-67, 2Mar72
<u>Nakhon Phanom Airport, Thailand</u>				
OL 1	Det 15, 30 WS	25 Oct 65	Organized	MATS SOG-138, 19Oct65
OL 1	Det 15, 30 WS	1 Jul 66	Discontinued	MAC SOG-80, 22Apr66
Det 25	30 WS	"	Organized	"
Det 25	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 25	10 WS	"	Organized	"
Det 25	10 WS	15 Feb 74	Inactivated	MAC SOG-80, 6Feb74
10 WS	1 WW	18 Feb 74	Moved from Udorn	"
Det 25	1 WW	1 Sep 75	Activated	MAC SOG-407, 22Aug75
10 WS	1 WW	30 Sep 75	Inactivated	MAC SOG-445, 22Sep75
Det 25	1 WW	"	Inactivated	"
<u>Cam Rahn Bay, Vietnam</u>				
Det 18	30 WS	25 Oct 65	Organized	MATS SOG-139, 20Oct65
Det 18	30 WS	1 Jul 71	Inactivated	MAC SOG-229, 26May71
Det 18	1 WGP	"	Activated	"
Det 18	1 WGP	1 May 72	Inactivated	MAC SOG-117, 12Apr72
<u>Bangkok City, Thailand</u>				
OL 1	30 WS	1 Jan 66	Designated and established	MATS SOG-152, 10Nov65
OL 1	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
OL 1	1 WGP	"	Organized	"
OL 1	1 WGP	1 Feb 67	Discontinued	MAC SOG-21, 2Feb67

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>An Khe Airfield, Vietnam</u>				
Det 24	30 WS	1 Jan 66	Organized	MATS SOG-153, 10Nov65
Det 24	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 24	5 WS	"	Organized	"
Det 24	5 WS	1 Oct 66	Discontinued	MAC SOG-156, 20Sep66
OL 2	Det 31, 5 WS	"	Organized	"
OL 2	Det 31, 5 WS	1 May 68	Moved to Camp Evans, V	MAC SOG-79, 1May68
<u>Tuy Hoa Airfield, Vietnam</u>				
Det 23	30 WS	1 Mar 66	Organized	MATS SOG-172, 14Dec65
Det 23	30 WS	15 Jun 66	Moved to Phu Cat AB, V	MAC SOG-102, 15Jun66
Det 36	30 WS	1 Nov 66	Organized	MAC SOG-194, 25Oct66
Det 36	30 WS	31 Dec 70	Inactivated	MAC SOG-330, 5Nov70
Det 36	5 WS	"	Activated	"
Det 36	5 WS	30 Jan 72	Inactivated	MAC SOG-7, 10Jan72
<u>Ban Me Thout Airport, Vietnam</u>				
Det 10	30 WS	1 May 66	Organized	MAC SOG-66, 28Mar66
Det 10	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 10	5 WS	"	Organized	"
Det 10	5 WS	1 May 68	Moved to Long Thanh AI, V	MAC SOG-79, 1May68
OL 6	1 WGP	15 Apr 70	Activated	MAC SOG-90, 1Apr70
OL 6	1 WGP	1 Sep 70	Redesignated OL E, 1 WGP	MAC SOG-228, 4Aug70
OL E	1 WGP	1 Mar 72	Inactivated	MAC SOG-43, 17Feb72
<u>Phu Loi City, Vietnam</u>				
Det 26	30 WS	1 May 66	Organized	MAC SOG-66, 28Mar66
Det 26	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 26	5 WS	"	Organized	"
Det 26	5 WS	1 Oct 66	Discontinued	MAC SOG-156, 20Sep66
OL 1	Det 32, 5 WS	"	Organized	"
OL 1	Det 32, 5 WS	7 Feb 69	Inactivated	MAC SOG-23, 4Feb69

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Phu Loi City (Cont)</u>				
OL 3	5 WS	7 Feb 69	Activated at APO 96345 to support 1st Inf Div	MAC SOG-23, 4Feb69
OL 3	5 WS	8 Sep 69	Located at Phu Loi AI, V	MAC SOG-206, 8Sep69
OL 3	5 WS	8 Apr 70	Inactivated	MAC SOG-46, 17Feb70
<u>Da Lat City, Vietnam</u>				
Det 27	30 WS	1 May 66	Organized	MAC SOG-66, 28Mar66
Det 27	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 27	5 WS	"	Organized	"
Det 27	5 WS	1 Oct 66	Discontinued	MAC SOG-156, 20Sep66
OL 3 Det 31, 5 WS		"	Organized	"
OL 3 Det 31, 5 WS		18 Apr 68	Eliminated	MAC SOG-50, 4Apr68
<u>Cu Chi City, Vietnam</u>				
Det 28	30 WS	1 Jul 66	Activated	MAC SOG-102, 15Jun66
Det 28	30 WS	8 Jul 66	Discontinued	MAC SOG-108, 27Jun66
Det 28	5 WS	"	Organized	"
Det 28	5 WS	1 Oct 66	Discontinued	MAC SOG-156, 20Sep66
OL 2 Det 32, 5 WS		"	Organized	"
		13 Jun 67	Location announced as Cu Chi AI, V	MAC SOG-117, 13Jun67
OL 2 Det 32, 5 WS		7 Feb 69	Inactivated	MAC SOG-23, 4Feb69
OL 4	5 WS	"	Activated at APO 96225	"
			to support 25th Inf Div	
OL 4	5 WS	8 Sep 69	Located at Cu Chi AI, V	MAC SOG-206, 8Sep69
OL 4	5 WS	1 Sep 70	Redesignated OL C, 5 WS	MAC SOG-228, 1Aug70
OL C	5 WS	31 Dec 70	Inactivated	MAC SOG-341, 16Nov70
<u>Phu Cat AI, Vietnam</u>				
Det 23	30 WS	15 Jun 66	Moved from Tuy Hoa Afld	MAC SOG-102, 15Jun66
Det 23	30 WS	24 Aug 66	Organization rescinded	MAC SOG-146, 24Aug66

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Phu Cat AI (Cont)</u>				
Det 23	30 WS	1 Jan 67	Activated	MAC SOG-206, 5Dec66
		19 Dec 66	Activation date moved up	MAC SOG-15, 25Jan67
		"	Location changed to Phu Cat AB, V	MAC SOG-21, 2Feb67
Det 23	30 WS	1 Jul 71	Redesignated Det 23, 1 WGP	MAC SOG-229, 26May71
Det 23	1 WGP	1 Dec 71	Inactivated	MAC SOG-436, 1Nov71
<u>Binh Thuy AB, Vietnam</u>				
Det 13	5 WS	8 Jul 66	Organized	MAC SOG-108, 27Jun66
OL 1	Det 32, 5 WS	"	Organized	"
OL 1	Det 32, 5 WS	1 Oct 66	Discontinued	MAC SOG-156, 20Sep66
Det 13	5 WS	"	Discontinued	"
Det 13	30 WS	"	Organized	"
Det 13	30 WS	15 Jun 70	Inactivated	MAC SOG-143, 19May70
<u>Ban-U-Tapao AB, Thailand</u>				
Det 30	10 WS	8 Jul 66	Organized	MAC SOG-108, 27Jun66
Det 30	10 WS	1 Sep 75	Inactivated	MAC SOG-407, 22Aug75
Det 30	1 WW	"	Activated	"
Det 30	1 WW	7 Jun 76	Inactivated	MAC SOG-150, 22Apr66
<u>Catecka City, Vietnam</u>				
OL 5	Det 31, 5 WS	1 Dec 66	Organized	MAC SOG-203, 29Nov66
		1 Nov 66	Organization date moved up	MAC SOG-15, 25Jan67
OL 5	Det 31, 5 WS	13 Nov 67	Location moved to Quang Ngai AI, V	MAC SOG-198, 13Nov67
<u>Xuan Loc City, Vietnam</u>				
OL 5	Det 32, 5 WS	1 Dec 66	Organized	MAC SOG -203, 29Nov66
		1 Nov 66	Organization date moved up	MAC SOG-15, 25Jan67
OL 5	Det 32, 5 WS	13 Jun 67	Location announced as Xuan Loc AI, V	MAC SOG-117, 13Jun67
OL 5	Det 32, 5 WS	3 Aug 67	Moved to Long Giao AI, V	MAC SOG-151, 3Aug67

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Tay Ninh AI, Vietnam</u>				
OL 4	Det 32, 5 WS	6 Dec 66	Organized	MAC SOG-206, 5Dec66
OL 4	Det 32, 5 WS	1 May 68	Moved to Bien Hoa AI, V	MAC SOG-79, 1May68
<u>Song Be City, Vietnam</u>				
OL 6	Det 32, 5 WS	15 Dec 66	Organized	MAC SOG-206, 5Dec66
			Order amended to read: Location - Long Binh Cy, V	MAC SOG-5, 6Jan67
<u>Bear Cat AI, Vietnam</u>				
OL 3	Det 32, 5 WS	1 Jan 67	Organized	MAC SOG-206, 5Dec66
		14 Jan 67	Organization date sipped	MAC SOG-23, 2Feb67
OL 3	Det 32, 5 WS	1 May 68	Moved to Dong Tam AI, V	MAC SOG-79, 1May68
<u>Long Binh AI, Vietnam</u>				
Det 32	5 WS	29 Nov 66	Moved from Bien Hoa AI, V	MAC SOG-202, 29Nov66
OL 6	Det 32, 5 WS	15 Dec 66	Moved from Song Be Cy, V	MAC SOG-5, 6Jan67
OL 6	Det 32, 5 WS	13 Jun 67	Location announced as Long Binh AI, V	MAC SOG-117, 13Jun67
5 WS	1 WGP	3 Aug 67	Moved from Tan Son Nhut	MAC SOG-151, 3Aug67
OL 6	Det 32, 5 WS	"	Moved to Cat Lai AI, V	"
Det 32	5 WS	1 Dec 71	Inactivated	MAC SOG-443, 9Nov71
5 WS	1 WGP	1 May 72	Inactivated	MAC SOG-137, 24Apr72
OL H	1 WGP	"	Activated	"
OL H	1 WGP	30 Jun 72	Inactivated	MAC SOG-253, 20Jun72
<u>Dragon Mountain, Vietnam</u>				
OL 4	Det 31, 5 WS	25 Jan 67	Moved from Pleiku, V	MAC SOG-15, 25Jan67
OL 4	Det 31, 5 WS	13 Nov 67	Moved to Camp Enari, V	MAC SOG-198, 13Nov67

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Long Giao AI, Vietnam</u>				
OL 5	Det 32, 5 WS	3 Aug 67	Moved from Xuan Loc AI, V	MAC SOG-151, 3Aug67
OL 5	Det 32, 5 WS	18 Apr 68	Eliminated	MAC SOG-50, 4Apr68
<u>Cat Lai AI, Vietnam</u>				
OL 6	Det 32, 5 WS	3 Aug 67	Moved from Long Binh AI, V	MAC SOG-151, 3Aug67
OL 6	Det 32, 5 WS	18 Apr 68	Eliminated	MAC SOG-50, 4Apr68
<u>Chu Lai Afl'd, Vietnam</u>				
OL 6	Det 31, 5 WS	18 Nov 67	Established	MAC SOG-198, 13Nov67
OL 6	Det 31, 5 WS	8 Dec 68	Eliminated	MAC SOG-310, 14Nov68
OL 3	Det 37, 5 WS	"	Activated	"
OL 3	Det 37, 5 WS	7 Feb 69	Inactivated	MAC SOG-23, 4Feb69
OL 7	5 WS	"	Activated at APO 96374 to support 23d Inf Div	"
OL 7	5 WS	8 Sep 69	Location announced as Chu Lai Afl'd, V	MAC SOG-206, 8Sep69
OL 7	5 WS	15 Sep 70	Redesignated as OL E, 5 WS	MAC SOG-228, 4Aug70
OL E	5 WS	1 Dec 71	Inactivated	MAC SOG-431, 29Oct71
<u>Camp Enari, Vietnam</u>				
OL 4	Det 31, 5 WS	13 Nov 67	Moved from Dragon Mountain	MAC SOG-198, 13Nov67
OL 4	Det 31, 5 WS	7 Feb 69	Inactivated	MAC SOG-23, 4Feb69
OL 1	5 WS	"	Activated at APO 96262 to support 4th Inf Div	"
OL 1	5 WS	8 Sep 69	Location announced as Camp Enari, V	MAC SOG-206, 8Sep69
OL 1	5 WS	8 Mar 70	Inactivated	MAC SOG-46, 17Feb70
<u>Quang Ngai AI, Vietnam</u>				
OL 5	Det 31, 5 WS	13 Nov 67	Moved from Catecka, V	MAC SOG-198, 13Nov67
OL 5	Det 31, 5 WS	18 Apr 68	Eliminated	MAC SOG-50, 4Apr68

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Dong Tam AI, Vietnam</u>				
OL 3	Det 32, 5 WS	1 May 68	Moved from Bear Cat AI, V	MAC SOG-79, 1May68
OL 3	Det 32, 5 WS	7 Feb 69	Inactivated	MAC SOG-23, 4Feb69
<u>Camp Evans, Vietnam</u>				
OL 2	Det 31, 5 WS	1 May 68	Moved from An Khe Afld, V	MAC SOG-79, 1May68
OL 2	Det 31, 5 WS	8 Dec 68	Eliminated	MAC SOG-310, 14Nov68
<u>Long Thanh AI, Vietnam</u>				
Det 10	5 WS	1 May 68	Moved from Ban Me Thout Aprt, V	MAC SOG-79, 1May68
Det 10	5 WS	1 May 72	Redesignated Det 10, 1 WGP	MAC SOG-137, 24Apr72
Det 10	1 WGP	30 Jun 72	Redesignated OL B, Det 1, 10 WS	MAC SOG-253, 20Jun72
OL B	Det 1, 10 WS	1 Sep 72	Inactivated	MAC SOG-432, 23Aug72
<u>Phu Bai AI, Vietnam</u>				
Det 37	5 WS	8 Dec 68	Activated	MAC SOG-310, 14Nov68
Det 37	5 WS	10 Mar 70	Inactivated	MAC SOG-48, 9Mar70
OL 6	5 WS	"	Activated	"
OL 6	5 WS	1 Sep 70	Redesignated OL D, 5 WS	MAC SOG-228, 4Aug70
OL D	5 WS	10 Feb 72	Inactivated	MAC SOG-38, 8Feb72
<u>APO San Francisco</u>				
OL 2	Det 37, 5 WS	8 Dec 68	Activated at APO 96490	MAC SOG-310, 14Nov68
OL 2	Det 37, 5 WS	7 Feb 69	Order amended to read: OL 7, Det 32, 5 WS, located at Phuoc Vin AI, V	MAC SOG-23, 4Feb69
OL 1	5 WS	"	Activated at APO 96262 to support 4th Inf Div	"
OL 2	5 WS	"	Activated at APO 96490 to support the 1st Cav Div	"

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>APO San Francisco (Cont)</u>				
OL 3	5 WS	7 Feb 69	Activated at APO 96345 to support 1st Inf Div	MAC SOG-23, 4Feb69
OL 4	5 WS	"	Activated at APO 96225 to support 25th Inf Div	"
OL 5	5 WS	"	Activated at APO 96372 to support 9th Inf Div	"
OL 6	5 WS	"	Activated at APO 96383 to support the 101st Air Cav	"
OL 7	5 WS	"	Activated at APO 96374 to support 23d Inf Div	"
OL 1	5 WS	8 Sep 69	Location designated as Camp Enari, V	MAC SOG-206, 8Sep69
OL 2	5 WS	"	Location designated as Phuoc Vin AI, V	"
OL 3	5 WS	"	Location designated as Phu Loi AI, V	"
OL 4	5 WS	"	Location designated as Cu Chi AI, V	"
OL 5	5 WS	"	Order assigning unit support responsibilities rescinded	"
OL 6	5 WS	"	Location designated as Camp Eagle AI, V	"
OL 7	5 WS	"	Location designated as Chu Lai Afld, V	"
<u>Phuoc Vin AI, Vietnam</u>				
OL 2	Det 37, 5 WS	8 Dec 68	Activated at APO 96490 Amended to read: OL 7, Det 32, 5 WS, located at Phuoc Vin AI, V	MAC SOG-310, 14Nov68 MAC SOG-23, 4Feb69
OL 7	Det 32, 5 WS	7 Feb 69	Inactivated	"
OL 2	5 WS	"	Activated at APO 96490 to support 1st Cav Div	"

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Phuoc Vin AI, (Cont)</u>				
OL 2	5 WS	8 Sep 69	Location designated as Phuoc Vin AI, V	MAC SOG-206, 8Sep69
OL 2	5 WS	1 Sep 70	Redesignated OL B, 5 WS	MAC SOG-228, 4Aug70
OL B	5 WS	1 May 71	Inactivated	MAC SOG-108, 8Apr71
<u>Marble Mountain Afld, Vietnam</u>				
OL 3	Det 14, 1 WGP	8 Aug 69	Activated	MAC SOG-181, 30Jul69
OL 3	Det 14, 1 WGP	8 Apr 70	Inactivated	MAC SOG-51, 1Mar70
OL 5	1 WGP	"	Activated	"
OL 5	1 WGP	1 Sep 70	Redesignated OL D, 1 WGP	MAC SOG-228, 4Aug70
OL D	1 WGP	1 Mar 72	Inactivated	MAC SOG-43, 17Feb72
<u>Camp Eagle AI, Vietnam</u>				
OL 6	5 WS	8 Sep 69	Location designated	MAC SOG-206, 8Sep69
OL 6	5 WS	10 Mar 70	Inactivated (moved to Phu Bai AI, V)	MAC SOG-48, 9Mar70
<u>Camp Radcliff AI, Vietnam</u>				
OL 1	5 WS	8 Mar 70	Activated	MAC SOG-46, 17Feb70
OL 1	5 WS	1 Sep 70	Redesignated OL A, 5 WS	MAC SOG-228, 4Aug70
OL A	5 WS	31 Dec 70	Inactivated	MAC SOG-341, 16Nov70
<u>Camp Horn AI, Vietnam</u>				
Det 37	5 WS	10 Mar 70	Moved from Phu Bai AI, V	MAC SOG-48, 9Mar70
Det 37	5 WS	1 May 72	Inactivated	MAC SOG-137, 24Apr72
<u>Kontum AI, Vietnam</u>				
OL 7	1 WGP	15 Apr 70	Activated	MAC SOG-90, 1Apr70
OL 7	1 WGP	1 Sep 70	Redesignated OL F, 1 WGP	MAC SOG-228, 4Aug70
OL F	1 WGP	1 Jan 72	Inactivated	MAC SOG-481, 10Dec71

Location Unit	Parent Unit	Effective Date	Action Taken	Authority
<u>Camp Holloway CMI, Vietnam</u>				
OL F	5 WS	16 Jan 72	Activated	MAC SOG-7, 10Jan72
OL F	5 WS	1 May 72	Redesignated OL F, 1 WGP	MAC SOG-137, 24Apr72
OL F	1 WGP	30 Jun 72	Redesignated OL A, Det 1, 10 WS	MAC SOG-253, 20Jun72
OL A	Det 1, 10 WS	1 Sep 72	Inactivated	MAC SOG-432, 23Aug72

INDEX

- Abbott, ALC James R., 76
 advisory assistance - See
 also training, weather
 v, 22, 24, 29
 Air Boon Choo exercise, 25
 aircraft:
 A-1/E, 60, 112
 A-37, 58
 B-52, 6, 44, 46, 60, 108
 C-5, 122
 C-9, 113
 C-47, 59, 102
 CH-47 "Chinook," 79-80
 CH-53, 118
 CH-54 "Flying Crane," 92
 C-123, 60, 63
 C-130/E, 45, 56, 59, 91,
 102, 108, 112, 116
 C-141, 48-49, 115
 CV-2 "Caribou," 85
 F-4/C, 37, 60, 112
 F-100, 58, 102
 F-105, 58, 112
 F-111, 58
 H-34, 38
 HC-130P, 102
 HH-53, 116
 KC-135, 60
 O-1A "Bird Dog," 60, 82
 OV-1 "Mohawk," 85
 RF-101, 58
 SR-71, 44, 59
 T-28, 35-37
 UH-1/B "Iroquois," 39, 81, 85
 WB-48E "Stratojet," 44
 WC-130A/E, 44-45, 49
 WC-135B, 44
 aircraft carrier, U.S.,
 Coral Sea, 118
 aircraft damaged by Typhoon
 Hester, 104
 Air Divisions (USAF),
 2d, 65
 824th, 56
 Air Force, U.S., v, 6, 18,
 22, 24, 50, 52, 67, 69,
 85, 105, 112, 118, 122
 Air Force Global Weather
 Central (AFGWC), 48, 113
 Air Forces,
 Seventh, 50-52, 55, 73, 74
 Twenty-second, 113
 Thai - See Royal Thai Air
 Force
 Vietnamese - See Vietnam
 airlift,
 cargo, 48
 combat troops, 48
 evacuation operations,
 Baby Lift, 114-115
 Eagle Pull, 114-117
 Frequent Wind, 114
 Homecoming, 113
 New Life, 114-115
 forward position, 38
 helicopter, 38-40
 paratroops, 63
 resupply, 25, 65, 108
Air Power in Three Wars, 74
 air refueling, 44, 60, 119
 Alaskan Air Command (AAC), 49
 Allen, ALC Hallet, 79
 ammunition, 81
 Andersen AFB, 46
 An Khe Airfield, 70, 79
 Arc Light operation - See air
 refueling
 architecture,
 Laos, primitive, 41-42
 open market, Vientiane, 42
 Thailand, permanent, 106-107
 temporary, 20
 Vietnam, houses, 1, 42
 permanent buildings, 12-13,
 19, 100
 temporary, 15-16, 21
 Arend, ALC William H., 85
 Army, U.S., v, 5-6, 22, 43, 48, 50-
 52, 65, 74, 76, 77-83, 85-92, 94-
 96, 98-100, 104, 112
 artillery emplacements, 98
 Green Beret, 98
 helicopters, 56-57, 67-68
 patches, 91
 pilot, 65
 special forces, 98, 112
 Army of Republic of Vietnam (ARVN),
 24
 Corps, I, 95
 Corps, III, 62
 9th ARVN, 81
 Ashworth, TSgt John W., 76
 Attleboro operation, 76
 Australia forces, 85
 Automatic Picture Transmission
 (APT), 73, 121
 Aviation Company, U.S. Army,
 121st, 65
 Baby Lift operation, 114-115

Baker, ALC Kenneth E., Jr,
 100
 battle damage, 37, 100-103
 helicopters, 118, 120
 Bamrick, A2C John R., 76
 Bangkok, 11, 28, 106
 Ban Me Thout AAF, 100
 barometer - See equipment
 base weather stations, 7, 10,
 12, 16-17, 21, 50-51, 109, 122
 Bates, TSgt Ken, 81
 Berghuis, SSgt Norman D., 64
 Best, Brig Gen William H., Jr,
 55
 Bien Hoa, v, 7, 10, 46, 48,
 53, 62, 101
 billets, 9-10
 Binh Thuy AB, 64, 100
 Bird, Col Joseph M., 77-78
 Birmingham operation, 76
 bombs,
 damage, 37, 47
 Guam, 46
 loading, 36
 strike, 36
 Bowers, ALC Norman, 66
 Braun, ALC Raymond J., 64
 Bready, SSgt Wilbur F., 43
 Brezee, Sgt Bernard, 87
 briefing the weather, 52-54,
 88
 combat crews, 53
 commanders, 52
 field operations, 65, 86
 Brigades,
 2d, 1st Cavalry, 90
 2d, 1st Infantry, 94
 13th Aviation, 81
 Bronze Star Medal, 76
 Brooks, SSgt Arthur, 66

 Ca Mau Peninsula, 24
 Cambodia, 6, 39, 108, 110, 114
 weather personnel, 39-40
 Cam, Capt Tu Bo, 24
 Camp Eagle, 95
 Camp Evans, 95
 Camp Gorvan, 86
 Camp McDermott, 98
 Cam Ranh Bay, 56, 61
 cargo, Tan Son Nhut, 48
 Caribou (CV-2) - See aircraft
 Casias, TSgt Max A., 53
 Cavalry Division,
 1st, 86-90
 Cavalry Regiment,
 11th Armored, 77
 Chinook (CH-47) - See aircraft
 Clark AFB, 44
 Coffmann, Maj Roy B., 52
 cold fog dissipation,
 Elmendorf AFB, 49

 Columbia Broadcasting System, 74
 combat crew briefing, 53
 combat period, v, 50
 combat troop airlift, 48
 combat weather teams (CWT), 89,
 94-96, 99
 CWT 1, 5WS, 93
 CWT 1, OL 4, Det 31, 5WS, 100
 CWT 2, Det 32, 5WS, 94
 CWT 2, OL 3, Det 32, 5WS, 84
 CWT 3, OL 2, Det 32, 5WS, 100
 Commander in Chief, Pacific
 Command (CINCPAC), 6
 commando doctor (USAF), 41
 Commando Vault operation, 56-57
 commando weathermen, 32, 35
 computer flight plans, 48
 Conley, Capt John L., 81
 Connell, Sgt Michael, 87, 89
 Connolly, Capt Thomas, Jr, 28
Coral Sea, U.S. aircraft carrier, 118
 Cromwell, ALC Peter, 93
 Cummins, Lt Col William E., II,
 77-78, 91

 Dak To, 97, 100
 Da Nang, 7, 13-14, 30, 64
 Data Acquisition and Processing
 Program (DAPP), weather satel-
 lite, 72, 74-75
 Dau Tieng, 100
 Davis, TSgt Leonard, 65
 Dean, Ambassador John Gunther, 117
 Defense Meteorological Satellite
 Program (DMSP), 72-73, 110-111,
 114, 119-120, 122
 Demilitarized Zone (DMZ), 66,
 95
 Detachments,
 2, 1WG/30WS, 50-51, 67
 2, 1WW, 46, 115
 2, 834th Air Div, 56
 3, 30WS, 53, 62
 4, 30WS, 22
 5, 30WS, 43
 7, 5WS, 80
 7, 30WS, 65
 8, 5WS, 85
 9, 1WG, 30
 9, 30WS, 66
 10, 5WS, 100
 11, 5WS, 81
 11, 30WS, 70
 12, 10WS, 29
 12, 30WS, 20
 13, 30WS, 100
 14, 30WS/1WG, 51-52
 15, 10WS, 43, 109
 15, 30WS, 43
 16, 1WW, 123
 16, 10WS, 105
 17, 10WS, 107

Detachments (cont)

18, 1WG, 56-57
 18, 30WS, 61
 19, 30WS, 11
 20, 1WW, 7
 20-2, 30WS, 17
 20-3, 1WW, 12
 21, 1WW, 13
 22, 30WS, 21
 30, 1WW, 123
 30, 10WS, 108
 31, 5WS, 87, 98-99
 32, 5WS, 52, 77, 84, 94-95, 100
 36, 30WS, 54
 44, 7WW, 48
 75, 2WG/5WW, 32

Dettling, 1/Lt Rober E., 62

Di An, 94

Dickens, Charles W., v

Dinh, John, 24

Dinkins, SP/6 Mickey, 98

Divisions (U.S. Army),

1st Infantry, 76

9th Infantry, 52, 82-83

23d Infantry, 104

101st Airborne, 48

Dong Ha, 66

Dong Tam AI, 52, 82-84

Don Muang, v, 7, 11, 106

Doucette, SSgt Robert E., 29

Duff, Capt Clarence M., 54

Dzula, Sgt Stanley, 88

Eagle Pull operation, 114, 116-117

Eagle Thrust operation, 48

Eaimaman, Sgt Watlama, 29

Eglin AFB, 112

Elmendorf AFB, 49

Elliff, Capt John J., 25

equipment (meteorological),

AN/CPS-9 radar, 67, 80, 92

anemometer, 24, 91-92

AN/FPS-41/103 radar, 67, 80, 92, 121, 122

AN/GMD-1 rawinsonde, 26, 64, 107

AN/GMQ-13, rotating beam ceilometer, 29, 71, 92, 108

AN/MMQ-2 weather van, 88, 91-94

AN/PMQ-9, meteorological kit, 98

Automatic Picture Transmission (APT) weather satellite readout van, 73, 121

barometer, aneroid, 90

mercurial, 13

equipment (cont)

ceiling light, 19, 108

facsimile, 122

MA-1, meteorological kit, 20, 22

ML-429/UM, psychrometric

calculator, 11, 91

pilot balloon (PIBAL), 28, 66, 82, 108

precipitation gauge, 61, 90, 96

single side-band radio teletype, 64

sling psychrometer, 87, 90-91

teletype machine, 31, 64, 122

theodolite, 28, 66, 92

TMQ-11 transmitter, 54

TMQ-20 measuring set, 94, 97

weather satellites, 72-75, 110-111, 114, 119-120, 122

wind recorder, 83, 93

WTR-1 radar, 69

WWV antenna, 73

Fecke, SSgt Hans D., 94

Field Force II, 77

fire,

aircraft, Tuy Hoa Airfield, 102-103

Bien Hoa officers' club, 101

VNAF bomb dump, 101

Fix, TSgt John R., 88

Flying Crane (CH-54) - See aircraft

fog dissipation system - See cold fog dissipation system

Forseth, 1/Lt Dean, 81

Fort Campbell, 48

forward air controllers, 32, 35

Frequent Wind operation, 114

Fuller, John F., v

Gallant, TSgt Anthony D., 22

Garcia SSgt Eduardo, Jr, 100

Gia Lam Airport, 113

Gibbs, ALC Clinton, Jr, 28

Gibson, SSgt Lewis P., 76

Gillard, Lt Col James H., 67

Golding, ALC Wayne, 32

Gornell, Capt Daniel R., 77

Green Beret, 98

Grimes, Maj Keith R., 32-35, 112

Guam, 44, 46, 115

Gulf of Siam, 118

Gulf of Tonkin, 22, 48, 50

Haiphong, 112

Hanoi, 113

Hart, John, 74

helicopters - See also aircraft 19, 25, 38-40, 79-81, 85, 87, 92, 104, 112, 116-118

damaged, 104, 118, 120

forward position airlift, 38

Hickam AFB, 114-115

Hill, 1/Lt Kennard F., 65
 Ho Chi Minh trail, 6
 Hoffman, TSgt Charles J., 67
 Hollingsworth, Brig Gen
 James F., 76
Holt, U.S. destroyer, 118
 Homecoming operation, 113
 Honolulu IAP, 115
 hootch (living quarters), 93
 Hotel Hong-Lam, 18
 Howes, Lt Col Lewis L., 24
 howitzer, 105MM, 41
 humanitarian activities, 43

 Infantry Division,
 1st, 76
 9th, 52, 82-83
 inflation shelter, 12-13,
 19, 64
 instrument shelter, 19, 40,
 66, 91, 108
 Iroquois (UH-1B) - See air-
 craft

 Jamesway shelter, 7-8, 12,
 16, 22
 Javier, Maj David, 123
 jeep, 86
 Jim Bowie operation, 76
 Johnson, Maj Frank G., 31
 Joint Air Operations
 Center, 26

 Keel, Sgt Alton J., 99
 Kelley, MSgt James W., 98
 Khe Sanh, 6, 74-75
 Khmer Air Force (Cambodia), 39
 weather service, 39-40
 Khmer Rouge, 39, 118
 killed in action (AWS
 personnel), 100
 Koh Tang Island, Cambodia,
 118, 120
 Korat AB, 105, 122-123

 landing zone (L.Z.), 56-57
 L.Z. Baldy, 99-100
 Laos, 6, 32-33, 37-38, 41,
 45
 forward air controllers,
 32, 35
 weather observing net, 32
 weather training, 33
 Lard, A2C Jerry L., 61
 Lavelle, Gen John D., 55
 Lasseur, Sgt Paul, 80
 Lewis, A1C John W., 83
 Lewis, WO Robert, 81
 Loisel, Col John C., 77, 94
 Long Binh, 50, 77-78
 Long Gia AI, 92-93
 Luyen, 1/Lt N. K., 62

 M-16 rifle, 66
 M-35 truck, 92
 machine gun, 40
 maintenance of weather equipment,
 71, 83, 107-108
 Manor, Brig Gen Leroy J., 112
 map, Southeast Asia, iii
 Marines, U.S., 118
 Marinosci, Sgt Angelo, 93
 market, Vientiane, 42
 Marquardt, A1C Ronald, 66
 Masher operation, 76
Mayaguez, U.S. merchant vessel,
 110, 114, 118-119
 McNaughton, Capt Grant, 41
 Mekong River Delta, 36, 65-66, 81
 Meo soldiers, 35, 37, 41
 Metzge, Sgt Raymond J., 108
 Milan, Sgt Edward W., 100
 Military Airlift Command (MAC),
 48-49, 114
 airlift control element, 48
 Military Assistance Command,
 Vietnam - See U.S. Military
 Assistance Command, Vietnam
 (USMACV)
 Minh, Col Tran Van, 31
 Miranda, TSgt Dennis, Jr, 123
 Mitchell, A1C Lloyd W., 32
 Mohawk (OV-1) - See aircraft
 Momyer, Gen William W., 74
 Montagnard tribesman, 43

 Na Khang, 41
 Nakhon Phanom Airport, 40, 109-
 110, 114, 119-120, 122
 Nam Lieu, 33-34
 weather observer class, 33-34
 National Aeronautics and Space
 Administration (NASA) weather
 satellite, 72
 National Oceanic and Atmospheric
 Administration (NOAA) weather
 satellite, 73
 Navy, U.S., 51-52, 112, 118
 Newhouse, Col Morris H., 31, 55
 New Life operation, 114-115
 Nha Trang Airport, 7, 17-18,
 22, 98
 Nimbus satellite, 72
 North Vietnam, 6, 32, 45, 52, 78
 111-112
 dead North Vietnamese
 soldier, 37
 Nunn, Sgt Gary R., 99

 O'Brien, SSgt Frederic, 69
 officers' club, Bien Hoa,
 burning, 101
 officers' quarters, Qui Nhon, 14
 Offutt AFB, 48

Operating Locations,
 5WS, 88-89
 1, Det 32, 5WS, 76
 2, Det 31, 5WS, 87
 3, 5WS, 83, 99
 3, Det 32, 5WS, 52, 84
 4, Det 32, 5WS, 95
 6, Det 31, 5WS, 99-100
 B, 5WS, 90
 E, 5WS, 104
 organization of AWS, 5-6
 Ounrueng, Sgt Prasan, 29

 Pacific, 25, 114
 Parnsri, Lt Watana, 123
 Pathet Lao, 32
 Phan Rang AB, 21
 Phat, Ngo T., 64
 Phu Cat AB, 69
 Phu Loi, 76, 99
 Phuoc Vinh AI, 87-90
 pilot balloon (PIBAL) training, 39, 82, 108
 Pilot-to-Forecaster Service (PFSV), 17, 92
 pilot reports (PIREP), meteorological, 62, 92
 Plaine des Jarres, 38
 Pleiku Airport, 7, 12, 22, 46
 Pochentong, 39-40
 prisoners of war, 111-113
 Homecoming operation, 113
 Phnom Penh, 110, 114, 117
 psychrometric calculator, 11, 91

 Quang Tri Province, 6
 Qui Nhon AB, 7, 14, 16, 67-68

 radar - See equipment
 rainmaking missions, 45
 Rajanatana, 2/Lt Tawatnai, 28
 rawinsonde - See equipment
 reconnaissance - See also aircraft
 44-45
 bomb damage, 47
 refueling area (air), 119
 representative observing site (ROS), 11, 30, 61, 79, 84
 Republic of Vietnam (RVN) - See Vietnam
 revetments, 95, 102-103
 Rhodes, Sgt Vernon J., 94
 Richey, 1/Lt Robert C., 70
 Richter, Capt Steven L., 40
 rivers, 1, 2, 74
 Lam Chi, 74
 Mekong, 36, 65-66, 74, 81
 Nam Mun, 74
 Tonle Sap, 2, 74

 Roche, ALC William, 81
 Rolling Thunder operations, 6
 Roush, SSgt Steven D., 39
 Rowe, Sgt Donald, 31
 Royal Australian forces, 85
 Royal Thai Air Force (RTAF), 105, 121
 Meteorological Division, 25, 29
 meteorologists, 27-29, 106-107
 weather service, 29, 62
 Wing III, 123
 Royal Thai Naval Air Station, 73, 108
 Royal Thai Navy Weather Division, 123

 Saigon, v, 62, 110, 114
 Saigon Metro, 50-51
 St. Louis University, St. Louis, MO, 28
 Sakul, A3C Pramote, 29
 Salas, Sgt Miguel C. "Mike," 40
 Sands, Lt Col Earl E., 123
 satchel charge damage, 102-103
 satellite (weather), 72-75, 110-111, 114, 119-120, 122
 Sattahip, 118
 Sawadee (farewell) party, 123
 Screaming Eagles (101st Airborne Div, U.S. Army), 48
 Sharp, Adm U.S.G., 6
 Shivar, Lt Col William H., 99
 Sihanoukville, 118
 Sikorsky H-34 - See aircraft
 silver iodide flares, 45
 sling psychrometer, 87, 90-91
 Smith, TSgt Ralph E., 24, 64
 Soc Trang AB, 19, 65, 80
 Soc Trang Tigers, 65
 Sonchaeng, Lt Uthai, 28
 Son Tay prison raid, 74, 111-112
 Soontarawet, Lt Col Sommot, 123
 Sorey, Col Robert L., 25
 Southeast Asia, map, iii
 Southeast Asia Joint Operations Center (SEA WECEN), 51
 Southeast Asia Tactical Forecast Center (SEATFC), 51
 Southeast Asia Treaty Organization (SEATO), 25
 Air Boon Choo exercise, 25
 Southeast Asia Weather Center (SEAWECEN), 51
 Spaatz, Gen Carl A. "Tooey," iv
 special forces, U.S. Army, 98, 112
 squadrons - See Weather Squadrons
 staff weather officers (SWO), 52, 64, 77, 91
 Stalker, Sgt Robert W., 108
 Stevenson, 1/Lt John C., 54
 Stolarski, TSgt Raymond L., 76
 Strategic Air Command (SAC), 44, 46, 108

Stratojet (WB-47) - See aircraft
 Suggs, Col Ralph G., 77-78, 94, 97
 Sungchaya, Comdr Li-ad, 123
 Swann, SSgt James C., 100
 Suitland, MD, 48
 Sweeney, MSgt John F., 99

 Takhli AB, 20, 28-29
 Tan An, 83
 Tan Son Nhut AB, v, 7-9, 22, 31, 48, 50-51, 53, 63, 67, 72, 80, 92
 target area forecasts, 51-52
 Taylor, Capt Thomas E., 87
 Tay Ninh, 4
 Television and Infrared Observing Satellite (TIROS VIII), 72
 tents, 9, 14, 16, 79, 95-96, 99-100
 Thailand/Thai, v, 6-7, 11, 28-29, 32, 40, 50, 106, 120, 122-123
 Department of Meteorology, 107
 weather personnel, 25, 27, 31, 105
 Timm, A2C Duane W., 61
 Tonkin Gulf, 22, 50, 76
 Touch, Lt Heng, 39-40
 training, weather,
 Cambodia (Khmer Republic), 39, 40
 class, 22, 27, 31, 33-35, 69
 Laos, 32-34
 on-the-job (OJT), 13, 22-24, 26-29, 31, 40, 64, 105
 Thailand, 27, 31
 Vietnam, 22-24, 26, 29
 Travis AFB, 115
 truck, M-35, 92
 Tunestam, Sgt Bo N.S., 82-83
 Tuy Hoa Airfield, 4, 54
 battle damage, 102-103
 Typhoon Hester damage, 104

 Ubon Airfield, 107, 116
 Udorn, 45, 50, 109, 121
 children's hospital, 43
 Underwood, AlC Nicky, 81
 U.S. aircraft carrier,
 Coral Sea, 118
 U.S. Air Force - See Air Force, U.S.
 U.S. Army - See Army, U.S.
 U.S. Army, Vietnam (USARV) - See Army, U.S.
 U.S. Destroyers,
 Holt, 118
 Wilson, 118

 U.S. merchant vessel,
 Mayaguez, 110, 114, 118-119
 U.S. Military Assistance Command, Vietnam (USMACV), 6, 51, 73
 U.S. Support Assistance Group/Seventh Air Force (USSAG/7AF), 109, 118
 U-Tapao, 73, 108, 117-118, 121-123

 Viet Cong, 78, 81, 90
 mock village, 78
 Vietnam (RVN), v, 6-7, 50, 52, 92, 99, 110, 114-116
 Air Force (VNAF), 22, 24, 29-30, 45-47, 64, 67, 75-76
 Air Traffic Control and Weather Squadron, 24
 burning bomb dump, 101
 equipment repair class, 31
 Weather Division, 29, 31, 62
 weather service, 29, 62, 64
 Army (ARVN), 24
 Department of Meteorology, 13
 orphanage, 43
 paratroops, 63
 weather observer training, 22, 26
 Vietnamization, 23-24, 26, 30-31
 Vientiane, 36, 42
 Vinh Long Airfield, 81
 flooded weather station, 70
 Vung Tau AB, 63, 85

 Waggy, Maj William, Jr, 64
 Walker, Sgt, 97
 Walls, Maj John B., 43
 Washington, DC, 72
 Watson, MSgt Thomas M., 32-34
 weapons, captured enemy, 78, 90
 weather balloons,
 inflating, 64
 releasing and tracking, 26, 66, 82
 Weather Group,
 1st, 30-31, 49-52, 56-57, 77
 weathermen's living quarters, 15
 weather observing net, Laos, 32
 weather reconnaissance, 44-45
 weather satellite, 72-75, 110-111, 114, 119-120, 122
 photographs, 74-75, 111, 120
 readout sites,
 VI, 72-73, 75
 XXIII, 110, 114
 Weather Squadrons,
 5th, 50, 76-78, 81, 84-88, 90-93, 95, 98-100
 10th, 40, 43, 50, 105, 107-109, 114, 118, 123

Weather Squadrons (cont)
30th, 8, 11, 17, 20-22,
24, 26, 28-29, 43,
50, 52-54, 60-62, 64-
67, 70
weather teams - See combat
weather teams
Weather Wings,
1st, 7, 12-13, 24-25, 31,
46, 50, 55, 76-77,
113-115, 123
5th, 32
7th, 48
Westmoreland, Gen William C.,
6, 52

White House, 72
withdrawal from SEA, v, 116
Wilder, AlC Andrew V., 32
Williams, AlC James P., 32
Wilson, Sgt Ralph T., 90
Wilson, U.S. destroyer, 118
Woodruff, Capt Dennis P., 52
Woods, Mrs. Carole, 114
Woods, Lt Col Harold D., 114

Xupravati, Col Bampen, 25

Yamkum, AlC Sawek, 28
Young, TSgt Lawrence L., 70

