

OLYMPIC ARENA

THE SAGA OF SAC'S MISSILE COMBAT COMPETITION



BY

**DR. E. MICHAEL DEL PAPA
DR. MARTIN HAGOPIAN**

**OFFICE OF THE HISTORIAN
HEADQUARTERS STRATEGIC AIR COMMAND
OFFUTT AFB, NEBRASKA 68113**

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"Olympic Arena, The Saga of SAC's Missile Combat Competition," represents a revision and update of SAC Study 159. The updated version traces the evolution of the SAC Missile Combat Competition from its inception with "Curtain Raiser" in 1967, through the 19th competition completed in May 1986.



In memory of General William H. Blanchard, the late Vice Chief of Staff of the Air Force, the Blanchard perpetual Trophy is awarded to the Best Missile Wing in the annual SAC Missile Combat Competition.

MISSILEER

By Captain Robert A. Wycoff

In vacant corners of our land,
off rutted gravel trails,
There is a watchful breed of those,
who see that peace prevails.
For them there are no waving flags,
no blare of martial tune,
There is no romance in their job,
no glory at high noon

In oft' repeated ritual,
they casually hang their locks,
Where the wages of one's love and hate,
are restrained in a small red box.
In a world of flick'ring colored lights,
an endless robot din,
The missile crews will talk awhile,
but soon will turn within.

To a flash of light or other worldly tone,
conditioned acts respond.
Behind each move, unspoken thoughts,
of the bombs that lie beyond.
They live with patient waiting,
with tactics, minds infused,
And the quiet murmur of the heart,
that hopes it's never used.

They feel the living throb,
of the mindless tool they run,
They hear the constant whir,
of a world that knows no sun.
Here light is ever present,
no moon's nocturnal sway.
The clock's unnatural beat,
belies not night nor day.

Behind a concrete door slammed shut,
no starlit skies of night,
No sun-bleached clouds in azure sky,
In which to dance in flight.
But certain as the rising sun,
these tacit warriors seldom see,
They're ever grimly ready,
for someone has to be.

Beneath it all they're common folk,
who eat and sleep and dream,
But between them is a common bond,
of knowledge they're a team.
A group of people who love their land,
who serve it long and well,
Who stand their thankless vigil,
on the brink of man-made hell.

In boredom fluxed with stress,
encapsuled they reside.
They do their job without complaint,
of pleasures oft' denied,
For duty, honor, country,
and a matter of self-pride.

OLYMPIC ARENA

THE SAGA OF SAC'S MISSILE COMBAT COMPETITION

On May 11, 1986, selected missile combat crews, maintenance, security police, information systems, and civil engineering teams from each of the Strategic Air Command's (SAC) six Minuteman and two Titan II Intercontinental Ballistic Missile (ICBM) wings converged on Vandenberg Air Force Base, California to participate in the nineteenth annual missile combat competition nicknamed "Olympic Arena."

Since its inception, the objectives of the annual competition were dedicated to: (1) refine current procedures and techniques, (2) promote the exchange of professional information among personnel from SAC missile units and non-SAC participating organizations, (3) increase the recognition of outstanding SAC individuals, wings, and participating non-SAC agencies, and (4) enhance esprit de corps throughout the SAC ICBM force.

A five-year quest for a missile combat contest, similar to the annual bombing competition long used by manned aircraft units in the Air Force, became a reality in 1967 with the advent of "Curtain Raiser." Comparatively, participants in the bombing competition were graded on the actual impact of bomb loads; however, live booster launches by missileers were neither practical nor necessary because the capability of the missile weapon system was inherently programmed. Instead, precision and care along with other factors prior to actual launch determined the potential effectiveness of the missile strike for scoring purposes. But hitherto, the diversity of existing ICBM weapon systems--Minuteman I, Minuteman II, Titan, and Atlas--precluded such a competitive affair. Then conveniently, phaseout of the Atlas weapon system enhanced the feasibility of a missile competition because the dissimilarities between Titan and Minuteman were statistically capable of conversion so they could be scored. Whereupon, in 1966 the missile combat competition concept was approved by the CINCSAC, General John D. Ryan.

The first SAC missile combat competition, aptly designated "Curtain Raiser," was carried out from 3 to 7 April 1967 at Vandenberg AFB, California. Both the timing of the first competition and the selection of Vandenberg Air Force Base as the host installation were significant. By the spring of 1967, the Strategic Air Command's ICBM force attained a strength of 1,000 Minuteman missiles deployed in underground silos (20 squadrons of 50 ICBMs each, organized into six wings) and 54 Titans similarly based (six squadrons of nine ICBMs each, organized into three wings). The choice of Vandenberg AFB as the site for the missile competition was only natural.

The 1st Strategic Aerospace Division (1STRAD), host command at Vandenberg AFB was tasked with the responsibility of conducting operational test launches and other space-related programs for the Strategic Air Command. The California base was also the home of the 3901st



Welcome to "Curtain Raiser" and Vandenberg Air Force Base, host for the annual SAC Missile Combat Competition.

Strategic Missile Evaluation Squadron (SMES), which evaluated the command's ICBM wings annually to ensure conformity to standard operations and maintenance procedures, and the 4315th Combat Crew Training Squadron (CCTS), responsible for the initial qualification training of all Strategic Air Command missile combat crews. Thus, 1STRAD, a one-of-a-kind organization, was in the unique position of possessing both the necessary personnel and equipment (especially Missile Procedures Trainers) with which to test and evaluate the skills and proficiency of SAC's missileers. Missile Procedures Trainers (MPT), electronically computerized simulators identical to operational base launch control centers, were used by the 4315th CCTS for training purposes.

Extensive technical support was provided to Olympic Arena competitors by various Vandenberg AFB units. The 4315th CCTS furnished properly configured MPTs for each of the competition weapon systems, along with maintenance, instructor, and operator personnel. The 394th ICBM Test Maintenance Squadron, a 1STRAD unit, supplied ground support equipment and configured launch facilities, as well as shop areas for munitions and other exercises. Evaluation scenarios and scripts used in the competition were developed and administered jointly by 4315th CCTS and 3901st SMES technicians. Other necessary support was provided by the 4392d Aerospace Support Group.

Originally the competition was to be limited to operational crews, but upon reflection was expanded to include targeting and alignment technicians. The inclusion of maintenance personnel influenced a change in the choice of competition commander from the SAC Director of Training to the 3901st SMES commander.

"Curtain Raiser" began at Vandenberg AFB on 3 April 1967 with each of SAC's nine ICBM wings was represented by two missile combat crews and one alignment team. Under competition rules each missile combat crew participated in three separate two-hour exercises in a Missile Procedures Trainer. Approximately 30 different "problems" were employed to test and evaluate crew reaction to emergency war orders, missile site emergencies, and various equipment malfunctions. Each problem was assigned a point value based on degree of difficulty and relative importance to the overall exercise. Points were deducted from the crew's total score for deviation from standard operating procedures or for exceeding established base time for task completion.

In contrast to missile combat crews, each alignment team participated in only one 12-hour exercise conducted in selected Vandenberg Minuteman and Titan launch facilities (silos). During the exercise each team attempted to precisely align the respective ICBM to an accuracy of within one-tenth of an arc-second to a specific target. One-tenth of an arc second represented the approximate equivalent of the diameter of a golf ball at a distance of 40 miles.

General Joseph J. Nazzaro, SAC
Commander-in-Chief and Colonel
James W. Yeater, 3901st SMES
commander admire the Blanchard
Trophy.



On the final day of the first competition (7 April 1967), the 351st Strategic Missile Wing (SMW), a Minuteman unit from Whiteman AFB, Missouri was declared overall winner with a total of 2,387 out of a possible 2,600 points, awarded the Blanchard Trophy, and honored as the "Best Missile Wing in SAC." The trophy, presented to the Air Force by the Boeing Corporation in 1967 was named in honor of General William H. Blanchard, the late Air Force Vice Chief of Staff. It was during General Blanchard's tenure as Director of Operations at Headquarters SAC that America's first-generation ICBMs, Atlas and Titan, entered service with the nation's deterrent force. In addition to the Blanchard Trophy, eight other awards (two wing, three crew, and three team) were distributed at the closing ceremony. The 381st SMW (Titan), McConnell AFB won the Best Titan Wing award. The accolade of Best Missile Crew in SAC went to Missile Combat Crew S-147 from the 351st SMW, made up of Captain Jon D Higgenbotham and Captain V. Meyer. The Best Maintenance Team in SAC trophy was bestowed upon a Titan missile alignment team from the 308th SMW, Little Rock AFB. Team members were Staff Sergeant Donald W. Bilsbarrow, Airman First Class Donald L. Hood, and Airman First Class Larry E. Jewell. Each of the latter was also awarded an Air Force Commendation Medal and promoted one grade in rank. Identical medals were given to Captains Higgenbotham and Meyer. In the final report on Curtian Raiser, Colonel James W. Yeater, competition commander, recommended that plans be developed "to increase the number of competitors and . . . maintenance participation" in future contests.



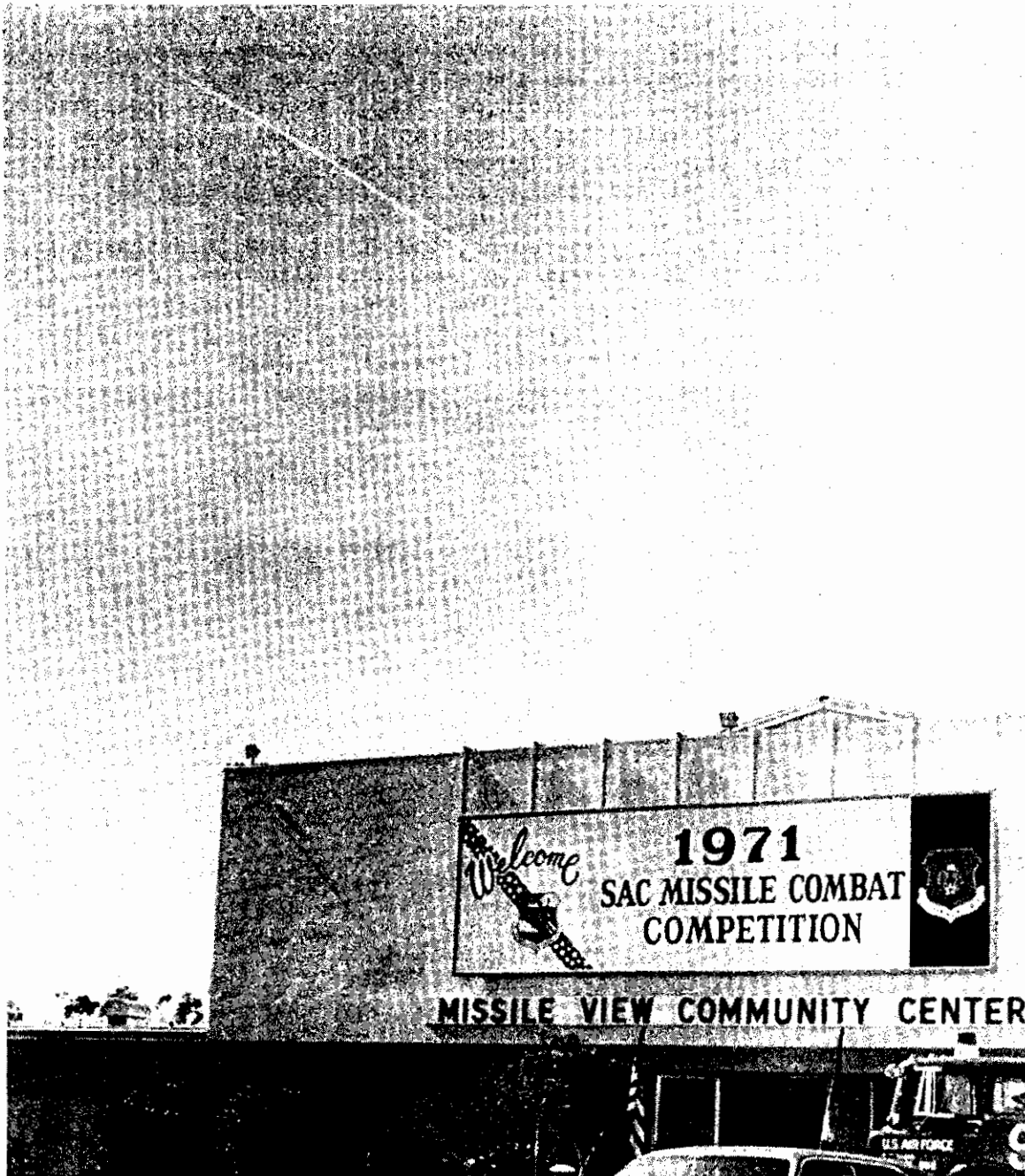
The 321st SMW, winners of Olympic Arena '69, led by their commander, Colonel Gerald G. Fall, displayed a well-known epigram.

The second SAC missile combat Competition, originally scheduled for 1968 but cancelled due to austere funding and extensive command involvement in Southeast Asia, was held at Vandenberg AFB during the week of 19-23 May 1969. Following the precedent set during Curtain Raiser, the 3901st SMES commander directed the competition while the 1st Strategic Aerospace Division hosted the contest. The competition was nicknamed "Olympic Arena," which was subsequently adopted and used in almost all future missile combat competitions. Secondly, while the number of competing missile combat crews remained unchanged and the quantity of exercises did not vary, the scenarios were divided into two phases, readiness, and launch. Thirdly, as recommended by Colonel Yeater in 1967, maintenance team participation was increased from one to four exercises. Finally, the great competitive spirit of Olympic Arena 1969 and enhanced esprit de corps of all contestants, was aptly illustrated by the fact that there was less than a three percent differential between the combined scores of the first and last place wings. The winning margin was only 1.5 points as four of the nine wings were in contention up to the posting of the final tally. Whereupon, the 321st SMW (Minuteman) from Grand Forks AFB, North Dakota won the perpetual Blanchard Trophy. The best Titan wing award went to the 390th SMW from Davis-Monthan AFB, Arizona. A total of ten Air Force Commendation Medals were awarded to the members of the Best Missile Combat Crew (S-006) from the 91st SMW of



In a Titan Missile Procedures Trainer, Crew S-034, 381 SMW, responds to programmed problems. Crew members, l-r, SSgt Bill J. Lamb, SSgt Andrew P. Downey, and Capt Raymond D. Chuvala.

F. E. Warren AFB, Wyoming. Two members of the latter team, Technical Sergeant James N. Nenno and Sergeant Danny R. Jackson, also received a one-grade promotion in rank due to outstanding performance (745 out of a possible 750 points) in the crucial missile guidance and control unit removal/installation exercise. The two sergeants represented the last enlisted personnel to compete in a Strategic Air Command missile competition to receive promotions in rank on the basis of team performance, as the practice was discontinued.



Glory Trip 93-B (Minuteman B) streaks overhead on the way to a target in the Western Test Range.

The next two missile combat competitions, Olympic Arena '70 and '71 followed the general framework of the guidelines and procedures established during the previous two contests. Some changes, however, did take place. Olympic Arena '70, for instance, marked the last competition in which Air Force Commendation Medals were awarded to winners of the Best Missile Combat Crew and Best Missile Maintenance Team honors. During Olympic Arena '71, the Minuteman III, the most advanced ICBM in the SAC arsenal, was represented in the competition for the first time by a maintenance team from the 91st SMW from Minot AFB, North Dakota.

In both the third and fourth missile combat competitions, as in the first two contests, the Minuteman portion of the SAC missile force monopolized the Blanchard Trophy. The 44th SMW from Ellsworth AFB, South Dakota won the trophy at the conclusion of Olympic Arena '70. The following year, the 351st SMW from Whiteman AFB, Missouri captured the Blanchard Trophy on the basis of a combined score of 4,453 out of a possible 4,800 points. In so doing, the 351st SMW became the first ICBM wing in the short history of the missile combat competition to win the Best Missile Wing in SAC award for the second time. The 351st previously garnered the award during Curtain Raiser in 1967.

The next contest, Olympic Arena '72, represented a significant advance in the evolution of the SAC missile combat competition. In order to foster greater interest in the meet, both missile combat crew and maintenance team participation was dramatically increased. Each ICBM wing was represented by four missile combat crews instead of two as in previous years. The Minuteman launch capability test, a new exercise introduced in the 1972 event, provided the first opportunity for competition monitors to observe the tests for all systems in a brief span of time. At the same time, maintenance team participation was expanded to include electronics laboratory and missile handling teams from Titan units and electro-mechanical and missile handling teams from Minuteman wings. Olympic Arena '72 also marked the first time in the history of the competition that Minuteman III was represented by both missile combat crews and a maintenance team, each from the 91st SMW at Minot AFB, North Dakota.

The intense rivalry during Olympic Arena '72 was indicative in the close scoring results. Two points separated the first three crews in operations, while in maintenance, one point margins decided the winners of three trophies. Error-free performances were recorded by at least one team from each unit. Also, for the first time, Minot AFB was represented among the ten competing Modernized Minuteman crews. Above all else, Olympic Arena '72 heralded the coming of age for Titan, as for the first in competition history, a Titan unit, the 381st SMW from McConnell AFB, Kansas amassed the highest point totals in the operations and maintenance exercises and won the prized Blanchard Trophy. Another first was established when a Titan missile crew from the 381st SMW, consisting of Captain John R. Grellman, Jr., First Lieutenant Baldwin G. Fitzgerald, Staff Sergeant Herman Grissom and Sergeant Miguel Hernandez,



Two typical Minuteman crewmen in a trainer racing time and seeking the always elusive perfection.



Best Titan Electronic/Lab Team, l-r, SSgt George E. Spinney, SSgt Robert J. Phye, 381st SMW.

outscored other competitors to secure the Best Missile Combat Crew in SAC trophy. So complete was Titan domination of the competition that when the final scores were posted, Titan wings placed first, second, and fifth among the nine competing wings.

Unfortunately, Titan possession of the Blanchard Trophy was a short-lived affair. In both Olympic Arena '73 and '74, Minuteman wings reasserted dominance. In the 1973 affair, the one remaining strategic missile wing with Minuteman I ICBMs, the 90th at F. E. Warren AFB, Wyoming, won the Blanchard Trophy. But, for the first time in competition history, the Best Minuteman Crew award was not won by a Minuteman I unit, as the 321st SMW took the latter trophy. Unlike previous contests, Olympic Arena '73 was conducted in two parts. The main competition took place at Vandenberg AFB from 26 April to 4 May 1973. However, after completion of Minuteman I operational testing in December 1971, Vandenberg's Minuteman I silos were reconfigured for special tests and

were unavailable for competition use. Consequently, competition exercises for Minuteman I electro-mechanical, missile maintenance, and combat targeting teams were carried out at the 90th SMW at F.E. Warren AFB, Wyoming from 9 through 13 April 1973. Whereupon, the 90th SMW crews then proceeded to Vandenberg AFB to participate in the main part of the competition.

During Olympic Arena '74, the 321st SMW, a Minuteman unit from Grand Forks AFB, North Dakota, was awarded the Blanchard Trophy after one of the most exciting and hard-fought contests ever witnessed. Competing under the slogan "eat 'em up," the 321st rose from an eighth place position in the overall standings on the second day of the competition to take the lead on the final day. As a result of the victory, the 321st SMW became the second two-time Blanchard Trophy winner, having first secured the award in Olympic Arena '69. Only the 351st SMW, winner of both the 1967 and 1971 competitions claimed a similar feat. Although a Titan wing had won only once (Olympic Arena '72), three of the top five finishers in the 1974 contest were Titan units. Conversely, the last place contestant for the Blanchard Trophy in 1974, the 44th SMW, also finished last in 1973, but, as frequently stated, there were no losers because the competitors represented the "best" of SAC's missile combat wings.

During the 1975 competition a number of novel "firsts" were recorded. The 1975 meet, for example, was the first contest in which females actively participated. Airman First Class Jeannine A. Sousely competed as a member of the reentry vehicle maintenance team from the 308th SMW (Titan), while Sergeant Jo A. Williamson took part as a member



A1C Jeannine A. Sousley



Sergeants J. A. Williamson and
H. R. Petruske



Col Jimmie F. Scott and members of the 381st SMW (Titan) in a victorious gesture, hoist the Blanchard Trophy.

of the electronics laboratory maintenance team representing the 321st SMW from Grand Forks AFB. Unlike the previous year's ordnance problem, Titan maintenance crews performed an engine exercise, while guidance technicians executed a reference prism "return-to-readiness" check. Similarly, electronics personnel performed a launch control set checkout in the laboratory rather than working on site. Only reentry vehicle and vertical alignment technicians' exercises remained the same as in the 1974 competition. Olympic Arena '75 also marked the first time that security police participated in the competition. Each ICBM wing was represented by a three-person security police team that took part in several exercises. The activities included: (1) a firing range test designed to demonstrate skill and proficiency with an M-16 rifle,

(2) a launch site exercise geared towards evaluating team reaction to both normal and emergency situations, and finally (3) written examinations provided to test the knowledge and understanding of applicable security standards. The Olympic Arena '75 award for Best Security Police Team in SAC went to a trio from the 321st SMW of Grand Forks AFB, consisting of Staff Sergeant Clayton H. Mumby, Airman First Class Robert C. Borg, and Airman First Class Paul A. Townsend.

The most significant "first" to emerge from Olympic Arena '75 was the success of the 381st SMW (Titan) of McConnell AFB in recapturing the Blanchard Trophy, (the only Titan wing to win the accolade). Another competition first was an unbreakable tie between the 44th SMW and the 90th SMW for the Minuteman Electronics Laboratory Team trophy, which precipitated dual awards. The return of the Titan however, was evident as four McConnell AFB combat crews exceeded their own (1973) competition record by posting a combined 2,290 points out of a possible 2,400. The 381st SMW also swept two other categories: Best Titan Propulsion Team and Best Security Police Team. Another Titan unit, the 390th SMW from Davis-Monthan AFB performed exceptionally well by scoring 290 out of a possible 300 points, a competition record for a single event. The three Titan wings placed among the top five finishers in Olympic Arena '75.



Drawing for schedules (l-r), Colonels William R. Brooksher, 341st SMW; Jimmie F. Scott, 381st SMW; Ray E. Miller, 90th SMW; Pierce L. Smith, 91st SMW; William M. Kottas, 351st SMW; Judson C. Faurer, 44th SMW; Joe L. Chruch, 321st SMW; Joe P. Morgan, 308th SMW; and Joseph P. Cerny, 390th SMW.



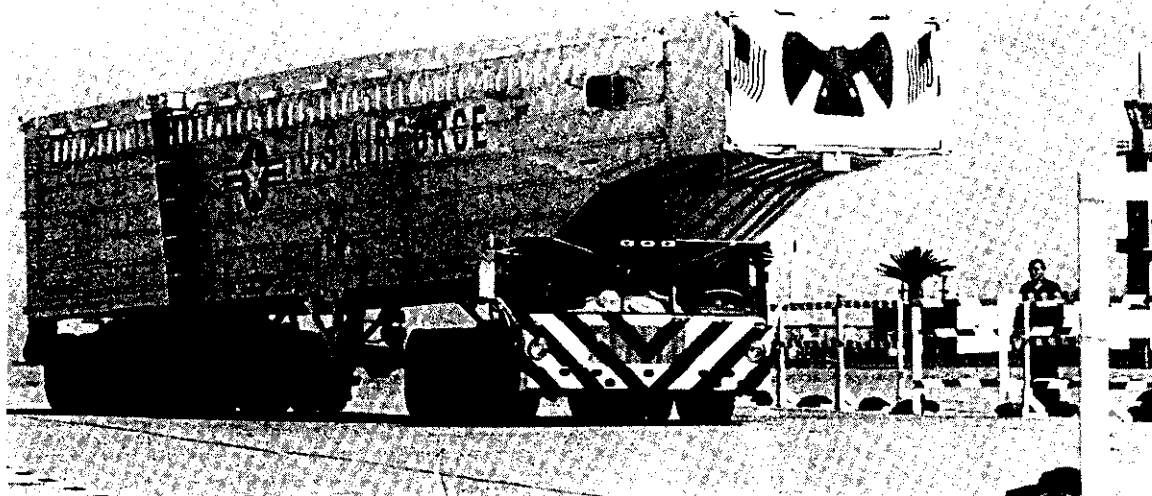
Winners of Olympic Arena '76, members of the 341st SMW cheered on by Col William R. Brooksher, hoist the Blanchard Trophy.

The ninth SAC missile combat competition, Olympic Arena '76, conducted at Vandenberg AFB during the period 22-30 April, was also the most comprehensive and all-inclusive contest (to date) ever held by the Strategic Air Command. To begin with, the competition was expanded to include participation by both a communications and civil engineering team from each of the nine competing wings. Due to the natural mixture of civilians and military in civil engineering organizations, Headquarters SAC allowed civilians to actively compete. Engineering teams from Ellsworth AFB and Davis-Monthan AFB included civilians, while the respective team from Little Rock AFB introduced a further innovation by using members from a non-SAC unit, the 314th Civil Engineering Squadron from the Military Airlift Command. In addition, each wing fielded a vehicle support team composed of two drivers and two spotters drawn from the ranks of the wing's maintenance team. Vehicle support teams participated in a series of complicated exercises involving a variety of obstacle courses. Interestingly, during a special demonstration of the vehicle support exercise, two enlisted technicians from Vandenberg's 394th Strategic Missile Squadron (a non-operational unit unqualified to compete in Olympic Arena) drove a payload transporter and a transporter erector achieving perfect scores. The "official" winner of the respective competition event, the 351st SMW (Minuteman) from Whiteman AFB, scored only 103 of a possible 120 points. The Vandenberg technicians, Staff Sergeant David L. Carpenter and Sergeant Anthony Zelensky received

special recognition from the CINCSAC, General Russell E. Dougherty, during the awards ceremony. The Blanchard Trophy was captured by the 341st SMW (Minuteman) from Malmstrom AFB, Montana, one of two wings yet to win the competition. So complete was the 341st SMW domination of Olympic Arena '76 that the 341st won 16 of 22 trophies, including the newly-established awards for Best Communications Team in SAC and Best Civil Engineering Team in SAC. Meanwhile, the Best Vehicle Support Team in SAC was captured by technicians of the 351st SMW from Whiteman AFB.

Marking the tenth anniversary of Olympic Arena, the 1977 missile combat competition was the largest to date. A record 393 competitors participated in the expanded contest. While the overall length of Olympic Arena 1977 was shortened from 11 to 10 days, the communications, civil engineering, and maintenance events were expanded to include 57 additional competitors. Participants in civil engineering, communications, and security police events were given written examinations that measured knowledge and understanding of appropriate manuals of job-related directives.

The spirited competition was highlighted by a close race between the 390th SMW (Titan) and the 351st SMW (Minuteman). The 390th SMW took the early lead and remained in front through the midway point when its lead was narrowed to four-tenths of a point by the highly motivated 351st SMW. When the final points were posted, the undaunted 351st SMW had captured eight awards and the Blanchard Trophy for an unprecedented third time, having won the first competition in 1967 and in 1971. Nonetheless, the 390th SMW, leading most of the way, came back from a ninth place standing in 1976 to finish a mere seven points behind the winner. The 390th SMW also won eight awards, but more importantly, a Davis-Monthan Operations crew (S-068) scored 588 out of a possible 600 points for the highest crew composite score in the history of Olympic Arena.



A Minuteman missile transporter-erector driven by Sgt Verdock A. Barnes from the 351st SMW during Olympic Arena '77, maneuvers the vehicle support competition course.

A total of 87 trophies (an increase of 11) were awarded. The Blanchard Trophy, customarily presented by CINCSAC, was awarded by Lieutenant General James E. Hill, 8AF Commander (vice-CINC designate), due to the illness of General Dougherty. Interestingly, the vehicle operator event included the first female Olympic Arena judge, Sergeant Rosalinda Greenfelder. Another "first" was established by the presentation of awards to civilians from the 351st SMW, participants in the civil engineering exercises.

Olympic Arena 1978, the eleventh annual missile combat competition, observed two simultaneous opening ceremonies. Due to the inactivation of Vandenberg's remaining Titan launch facility 395-C, the maintenance portion (with the exception of munitions) of the 1978 competition was held at McConnell AFB, Kansas while the remaining events were conducted at Vandenberg AFB. A similar situation existed in the 1973 contest when



TSgt Paul D. J. Vandenberg from the 91st SMW munitions maintenance team checks out a Mark 12 Minuteman reentry vehicle during Olympic Arena '77.



SrA Jerry E. Meiser, 390th SMW, enters a Titan II launch facility as part of an Olympic Arena '77 security exercise. The exercise was designed to evaluate the competitor's reaction to potential normal or emergency situations.

only one unit remained armed with the WS-133A (Minuteman I) weapon system. Electro-mechanical, missile maintenance, and combat targeting exercises were held at the 90th SMW facilities at F. E. Warren AFB, Wyoming. Vandenberg's Minuteman I launch facilities had been converted for use by the Space and Missile Test Center (Air Force Systems Command) for research and development launches. At the same time, austere funding severely curtailed the numbers of competitors for the 1978 competition. Comparatively, the number of competitors and exercises for each wing was reduced by approximately 50 percent:

<u>Event</u>	<u>1977</u>	<u>1978</u>
Operations	four crews	two crews
Maintenance	six exercises	three exercises
Security Police	one 7-pers team	one 3-pers team
Communications	two 2-pers team	one 2-pers team
Civil Engineering	two 2-pers teams	one 2-pers team
Vehicle Operator	two 2-pers teams	deleted

The overall number of competitors was reduced from 393 in 1977 to 192 in 1978.



TSgt Fred Stanton (left), SrA Dennis R. Case, and A1C Robert E. Kethely, 308th SMW Titan missile maintenance team are evaluated by TSgt David R. Turkali, 3901st SMES, as they check the second stage of a Titan II, during Olympic Arena '77.

Competing on its home turf in the maintenance exercises, the 381st SMW (Titan) Electronic Laboratory Team attained the only perfect score of the competition, which earned the Best Missile Maintenance award. Moreover, the 381st SMW went on to win all portions of the competition held at McConnell AFB and finished second in the Blanchard Trophy contest, 41 points ahead of the third place 308th SMW (Titan) from Little Rock AFB, Arkansas.

The closeness of the race for best communications team, won by the 308th SMW (ninth place finisher in 1977), was indicated by the four-point separation among the top eight finishers, while the ninth place team was only 13 points behind. Similarly, only six points separated the top four civil engineering finishers. Also, the gap between first and last place Blanchard Trophy finalists decreased from 70.8 percent in 1976, 41.7 percent in 1977, to only 18.0 percent in Olympic Arena 1978. Significantly, the 91st SMW (Minuteman) from Minot AFB won the Blanchard Trophy for the first time, by outdistancing the second place 381st SMW by 27 points. The triumph also completed the roster of Minuteman wings to win the trophy.

Sergeants James Meyers, (left) and Rodney Kroll, 351st SMW, prepare the code change verifier as part of the electronic lab exercise during Olympic Arena '78. The self-test performed by the 351st team verified the missile test set would operate properly.

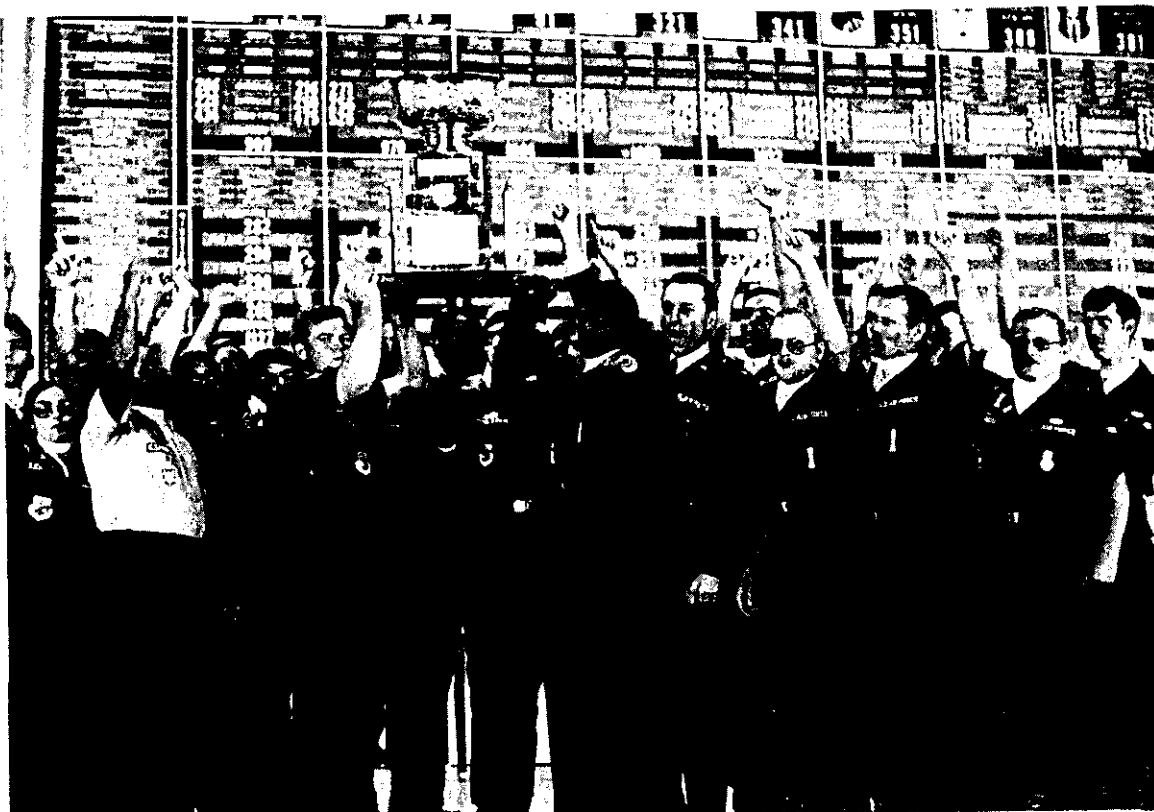


The Minuteman hold on the Blanchard Trophy was brief as Titan decisively returned to the forefront. Olympic Arena 1979 was held in the same two locations as the 1978 event. One difference, was an increase in the number of competitors from 192 to 210, as each Minuteman Wing Composite Maintenance Team was enlarged by three members. The operations and security police team makeup remained the same. Other teams changed inherently but the total numbers did not vary, as indicated below. (The figures in parentheses represent the total number of contestants for all wings in that category):

<u>Category</u>	<u>1978</u>	<u>Minuteman</u>	<u>1979</u>
Operations	Two 2-pers crews	(24)	Two 2-pers crews (24)
Maintenance	Elect-Mech Team	(12)	Missile Maint Team (30)
	Refrig Team	(12)	Pneudraulics Team (12)
	Munitions Team	(18)	Munitions Team (18)
	Elect Lab Team	(12)	Power Prod/Elect Team (12)
Comm	SACCS Team	(12)	Cable Maint Team (12)
Civ Eng	Int Elect Team	(12)	Environ Sup Team (12)
Sec Police	One 3-pers Team	(18)	One 3-pers Team (18)
			<u>Titan</u>
Operations	Two 4-pers Crews	(24)	Two 4-pers Crews (24)
Maintenance	Propulsion Team	(06)	Propulsion Team (06)
	Facilities Team	(06)	Facilities Team (06)
	Munitions Team	(09)	Munitions Team (09)
	Elect Lab Team	(06)	Missile Maint Team (06)
Comm	SACCS Team	(06)	Radio Type Maint (06)
			Network Team
Civ Eng	Int Elect Team	(06)	Refrig Team (06)
Sec Police	One 3-pers Team	(09)	One 3-pers Team (09)
TOTAL COMPETITORS		192	210

The Minuteman Power Production and Pneudraulics teams were new to the competition, although Titan teams competed in events similar to the latter in 1977. The Minuteman Cable Maintenance and Titan Radio Type Maintenance Network teams were also new. The Minuteman missile wings represented the following weapon systems:

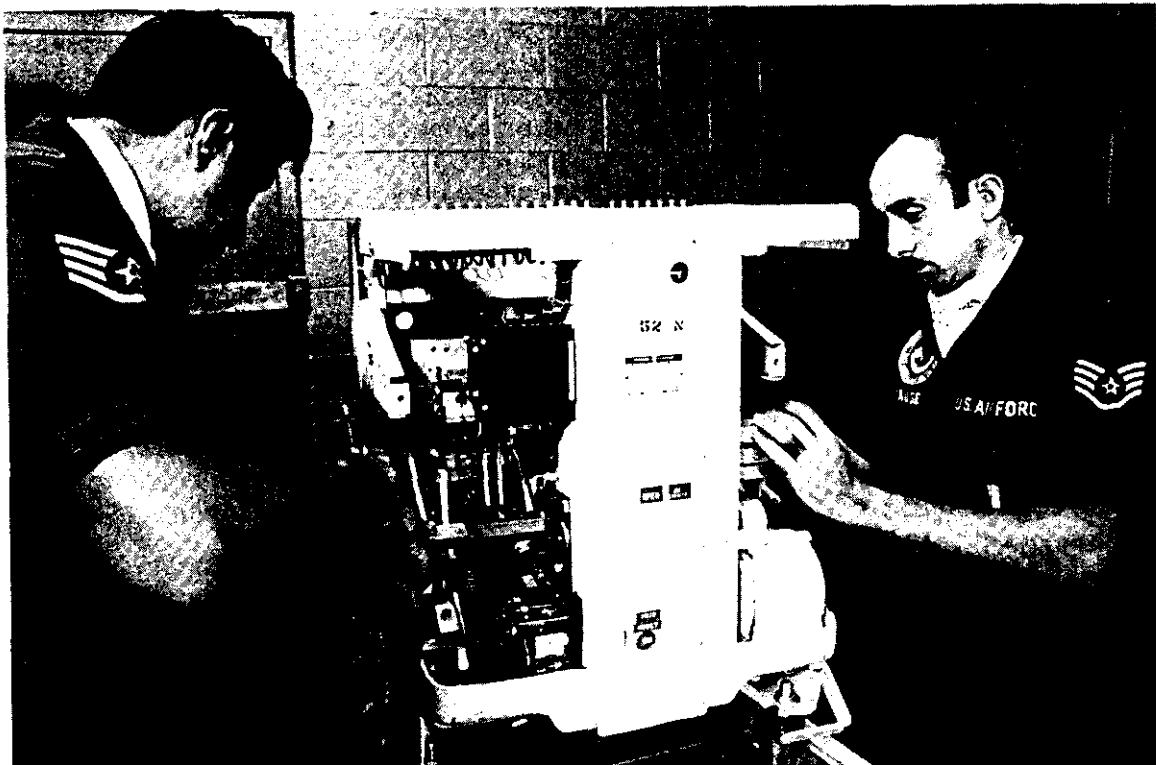
<u>Weapon System</u>	<u>Strategic Missile Wing</u>
Minuteman II/Command Data Buffer (CDB)	341 SMW, Malmstrom AFB
Minuteman Mod/Command Data Buffer	321 SMW, Grand Forks AFB
	90 SMW, F.E. Warren AFB
	91 SMW, Minot AFB
Minuteman Mod/Improved Launch Control System (ILCS)	341 SMW, Malmstrom AFB
Minuteman Mod/Software Status Authentication System (SSAS)	44 SMW, Ellsworth AFB
	351 SMW, Whiteman AFB



Cries of "We're number one" echoed throughout the building as Col Nathan Hartman and his 390th SMW (Titan) celebrated winning the Blanchard Trophy and dominating the twelfth SAC missile combat competition by capturing twelve of thirty available awards. It was the first Blanchard win for the Davis-Monthan AFB strategic missile wing.

Since the 341st SMW was armed with two different weapon systems, one operations crew competed with Minuteman II/CDB, the other with Minuteman Modernized/ILCS. Nineteen seventy-nine was the "Year of the Titan" as the 390th SMW captured the Blanchard Trophy for the first time. The Titan wing, in first place on opening day, won fourteen of twenty events and maintained the lead all the way to the final posting of scores, in a record-breaking 42-point finish ahead of the second place 341st SMW. However, the Davis-Monthan Titan wing's first place showing for Best Missile Crew was the lowest in competition history.

While Titan crews dominated the maintenance event in 1978, finishing first, second, and third respectively, in the 1979 competition the Titan units garnered only second, fourth, and ninth places. The civil engineering award went to the 44th SMW (Minuteman), a first for the Ellsworth AFB wing. Winner of the security police events, the 91st SMW, reinforced the dominance of North Dakota Minuteman units, winning four out of five times since the inception of the event in 1975. Although the 390th SMW won the Blanchard Trophy for the first time, the Titan wing had previously finished second in 1969, 1970, 1974, and 1977.



Staff Sergeants Bonifacio Chavez, Jr., and Richard S. Krause, 390th SMW, work on a diesel generator as part of a civil engineering exercise during Olympic Arena '78.

Other "firsts" during Olympic Arena '79 included a female radio technician among the competitors in the communication, cable, and radio events. Also, since the reduction from four to two combat crews per unit, both first and second place Minuteman crews were from the 341st SMW. Finally, Olympic Arena '79 marked the first time that a unit won the Best Maintenance Team award for the fourth time. The 341st won previously in 1970, 1976, and 1977.

The 13th annual SAC missile combat competition was held 24-30 April, 1980 at Vandenberg AFB. For the second consecutive year Titan dominated the competition as the 381st SMW from McConnell AFB took top honors amassing 2,747 out of a possible 3,000 points. The competition's competitiveness was demonstrated by the 189-point differential between first and last place wings. The 381st won the Best Titan Munitions and Communications events. The Best Missile Operations and Best Combat Crew awards also went to a Titan wing, the 308th SMW from Little Rock AFB. Only 12 points separated the second place 90th SMW (Minuteman) and third place 321st SMW (Minuteman).

Olympic Arena '80 achieved all competition objectives and also provided a number of "firsts": (1) an Operational Combat Crew (S-023) from McConnell AFB included a female, Sergeant Theresa M. Garrison; (2) Titan wings won consecutive Blanchard Trophies, (390th SMW in 1979 and the 381st SMW in 1980); (3) the 381st SMW won the Blanchard for the third

time; (4) a missile maintenance squadron refrigeration shop competed in Olympic Arena; (5) for the first time since the installation of the Universal Space Guidance System (USGS) on Titan IIs, laboratory technicians performed USGS bench tests during the competition; (6) the security police exercise involved a hostage; and (7) for the first time, weapons firing was not included as part of the exercise.

The 1981 Olympic Arena which opened on the first of May, provided the first four-time winner of the Blanchard Trophy. The 351st SMW (Minuteman) with 2,639 out of a possible 3,000 points also won previously in 1967 (Curtain Raiser), 1971, and 1977. Only two points differentiated the winner from the second place 44th SMW (Minuteman). In fact, the first four finishers were merely 14 points apart at the final score posting. The fourth place 308th SMW (Titan), yet to win a Blanchard Trophy, won the most (eight) individual trophies. At the same time, while not posting one first place score, Whiteman's missileers gathered enough points in various events to win first place and the Best Minuteman Wing award. The security police exercises added a touch of realism to the competition with the use of a multiple integrated laser engagement system. Eye-safe laser signals emitted by a device attached to the muzzle sights of an M-16 and/or other weapons loaded with blanks indicated when an adversary was "wounded." Signals gathered by sensors radiated a continuous tone when a victim suffered a direct hit. Despite minor problems and lessons learned in operations and communications, the 1981 contest produced four novel situations: (1) a Minuteman radio team competed for the first time; (2) a civilian, Mr. Calvin D. Cox (WG-11) from the 44th SMW competed on the communications team; (3) a high frequency radio was used for the first time; and (4) by refining test equipment, the communications exercise described specific performance tasks.

In conjunction with Olympic Arena '81, twenty-two aerospace contractors sponsored an eight million dollar space and missile exposition featuring Space Shuttle, MX, NAVSTAR, Minuteman, and other related scientific and technical areas. Centrally located on base, the exposition was also open to the general public.

Similar to the 1981 competition, the 1982 affair, held from 23 through 29 April, was decided by one point as the 44th SMW (Minuteman), ahead in composite points since the second night, attained 2,675 out of a possible 3,000 points to take the Blanchard Trophy for the second time. One point behind, at 2,674 points, the 381st SMW (Titan) from McConnell AFB not only won second place but managed to win six trophies compared to only two for the competition winner. A third place score of 2,636, only 41 points behind the winner, was attained by the 308th SMW (Titan)--yet to win the Blanchard Trophy.

Innovations during the 1982 competition by the 381st SMW included the use of an electronic bore gauge to determine inside measurements of connecting rods and cylinder liners for the civil engineering refrigeration exercise, which resulted in a very precise reading. The 308th SMW

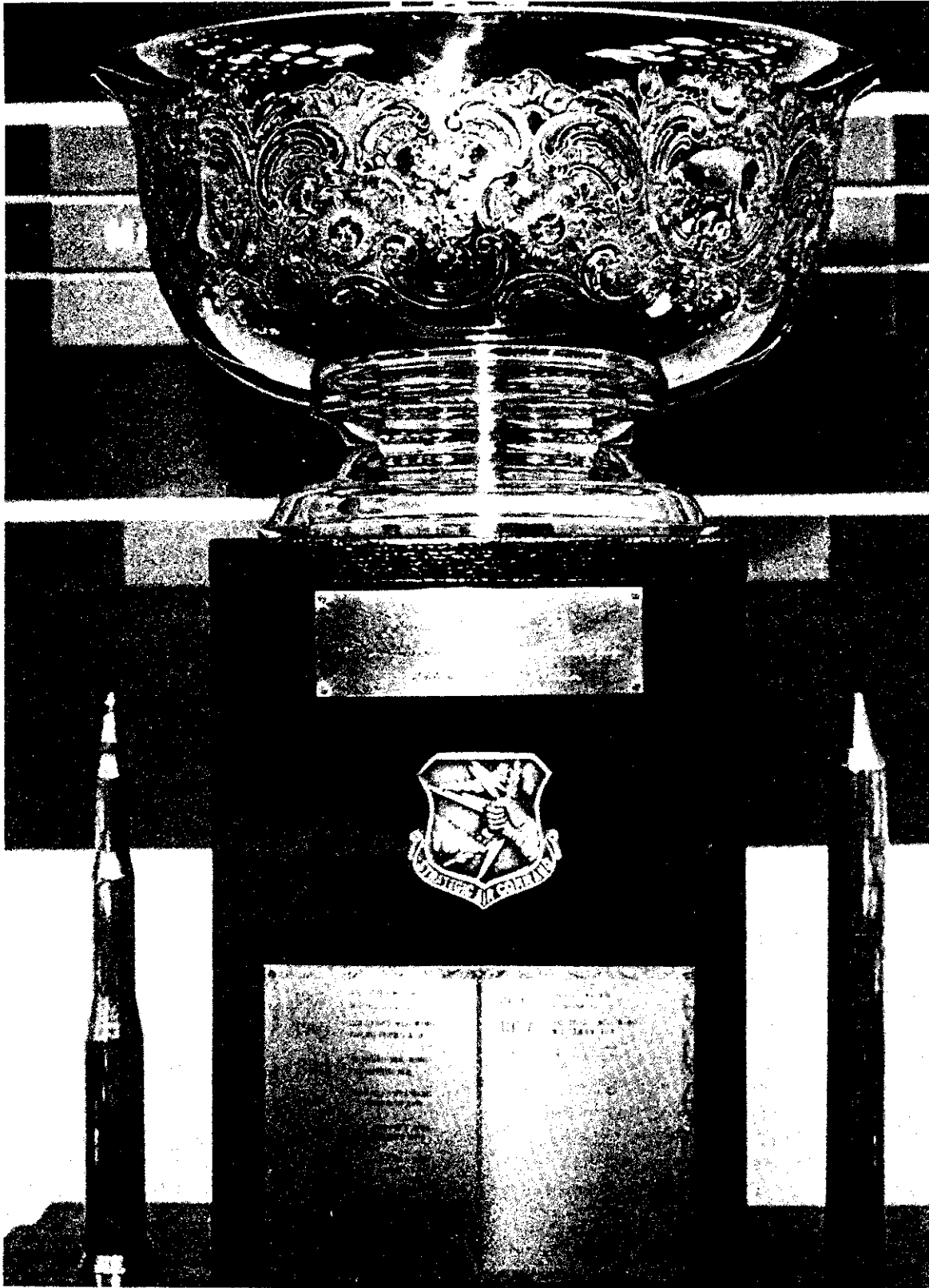
communications team fabricated several probes and connectors that simplified connecting test cables to sophisticated communications equipment and saved valuable time. For the first time, a Minuteman Periodic Maintenance Team (MPMT) competed in Olympic Arena. (The MPMT performed random inspections, did some trouble-shooting, and repaired a launch facility fuel system and launcher equipment room environmental control system.) Also for the first time in competition history, a security police team achieved a perfect score during an exercise (excluding firing). As a postscript, the nickname "Olympic Arena," used from 1969 through 1981, failed to appear in SAC Operations Order 10-82, and officially gave way to a new designation, "SAC Missile Combat Competition."

The sixteenth SAC Missile Combat Competition, conducted at Vandenberg AFB from 29 April through 5 May 1983, included all of SAC's nine strategic missile wings--for the last time--as the 390th SMW, in the process of inactivation would not be operational for the 1984 event.

Eventually, the remaining two Titan wings faced a similar fate as the aging and venerable Titan weapon system retired from the SAC deterrent missile force. Quite appropriately, the "beginning of the end" was truly the "Year of the Titan" as first, second, and third places--a clean sweep--fell to Titan wings, also a first in competition history. In the opinion of veteran competition contestants, the 1983 contest was the best to date. The 381st SMW won the Blanchard Trophy while capturing nine trophies. The second place 308th SMW, followed by the 390th SMW each won three trophies, as the latter wing competed in its last competition. Innovations in the 1983 event included the use of a land navigation course as an exercise phase. Also, in conjunction with observing all test set fittings and seal joints of the hydraulic portion of the alcohol system, the 390th SMW missile maintenance team sprayed a blue chalk compound into the test set alcohol tubing connections to positively detect possible leaks. Even though the weapon system was on its way out, the aggressive competitiveness, the clean sweep of the competition by the three Titan wings personified the excellence and professionalism of SAC's missileers.

The seventeenth annual SAC Missile Combat Competition held at Vandenberg AFB, 4 through 10 May 1984, was composed of six Minuteman and the two remaining Titan strategic missile wings. The 390th SMW from Davis-Monthan AFB, in the final process of inactivation, did not compete. After a spirited contest, the 90th SMW from F. E. Warren AFB, Wyoming (the scheduled future operational sight for the Peacekeeper weapon system) won the Blanchard Trophy. At the same time, while the two Titan wings failed to repeat the "clean sweep" of 1983, they managed to win second and third places, one point apart in the overall scoring, surpassing the closest of the other five Minuteman wings by more than 35 points. The 308th SMW finished second closely followed by the 381st SMW.

Among several innovations by the participants during the competition, one involved the Minuteman pneudraulics exercise (Guidance and Control Purge Manifold Certification). The exercise task required installation of a means to support three test gauges. Although a variety



THE BLANCHARD TROPHY

of methods were employed by competing wings, the 351st SMW connected a low pressure guage at a "quick disconnect" and installed a shutoff valve to reduce pressure which eliminated removal of a tube, and saved time and wear on the assembly.

The usual Space and Missile Exposition sponsored by Vandenberg's aerospace contractors attracted a steady stream of military and civilian visitors. Perhaps, the most notable visitor at the 1984 competition was the venerable "Father of the Missile Force," General Bernard A. Schriever, USAF (Ret), who gave the keynote address.

The 1985 missile combat competition, the 18th contest since the first one in 1967, was held at Vandenberg AFB, 26 April through 2 May. Six Minuteman and two Titan wings (each) provided two missile combat crews, a composite maintenance team, security police team, information systems team, and a civil engineering team, a total of 202 competitors. Titan clearly dominated the competition as the 308th SMW from Little Rock AFB completed the roster of Titan wings to win the Blanchard Trophy. Through 17 competitions the 308th had previously finished second and third on numerous occasions, but never in first place. The Little Rock AFB team literally won going away by capturing nine of 26 trophies awarded, and scored a total of 1109 out of a possible 1200 available points to place first in overall missile operations, a significant boost toward winning the Blanchard Trophy. On the final day of the competition, the 381st SMW (Titan) moved from fourth place to second edging out the 341st SMW (Minuteman) by three points. Although the second place 381st SMW (Titan) finished 99 points behind the winner, the "Year of the Titan" was reincarnated.

A prominent innovation noted during the 1985 competition occurred in the reentry system upload. During the inspection portion, the 321st SMW team employed a contour template in place of the micrometer depth guage to examine the forward and aft shrouds. Substitution of the template provided technicians more accuracy in detecting possible surface defects.

In 1986 "Olympic Arena" returned as the nickname for the annual SAC missile combat competition, after a five year hiatus. Olympic Arena '86, held at Vandenberg AFB, 16 through 22 May, marked the final appearance in competition for the Titan weapon system, as six Minuteman and two Titan strategic missile wings sent their "best" to compete for the Blanchard Trophy and an array of related trophies. As in previous contests, each wing was represented by two missile combat crews, a composite maintenance team, security police team, information systems team, and a civil engineering team. The actual competitive exercises, conducted 18 through 20 May saw the 321st SMW (Minuteman) take an early 102 point lead after the first night's tally. However, the second night's results found seven of the eight wings only one percentage point (91.8 to 92.9 percent) apart. Dramatically, the contest went down to the wire after three days of extremely close competition. The 341st SMW (Minuteman) from Malmstrom AFB won the Blanchard Trophy by a mere six points.

SAC MISSILE COMBAT C

90 SMW BENTON AIR FB	91 SMW MINUTEMAN AFB MO	321 SMW GRAND FORKS AFB ND	341 SMW MALMSTROM AFB MT	351 SMW WHITEMAN AFB MO
CIVIL ENGINEERING TEAM TOTAL: 181	CIVIL ENGINEERING TEAM TOTAL: 185	CIVIL ENGINEERING TEAM TOTAL: 190	CIVIL ENGINEERING TEAM TOTAL: 190	CIVIL ENGINEERING TEAM TOTAL: 190
INFORMATION SYSTEMS TEAM TOTAL: 192	INFORMATION SYSTEMS TEAM TOTAL: 194	INFORMATION SYSTEMS TEAM TOTAL: 192	INFORMATION SYSTEMS TEAM TOTAL: 192	INFORMATION SYSTEMS TEAM TOTAL: 192
SECURITY POLICE TEAM TOTAL: 100	SECURITY POLICE TEAM TOTAL: 80	SECURITY POLICE TEAM TOTAL: 95	SECURITY POLICE TEAM TOTAL: 95	SECURITY POLICE TEAM TOTAL: 95
MAINTENANCE TEAM TOTAL: 223	MAINTENANCE TEAM TOTAL: 231	MAINTENANCE TEAM TOTAL: 231	MAINTENANCE TEAM TOTAL: 231	MAINTENANCE TEAM TOTAL: 231

Jubilant members of the 341st SMW (Minuteman) from Malmstrom AFB, Montana, celebrate their Blanchard Trophy victory in a close contest that saw the sentimental favorites--the two remaining Titan wings competing for the 19th and final time--tie for second place six points behind the winner.



First Lieutenants Frank Smith and John Husovsky, one of two operations teams from the 90th SMW during Olympic Arena '86.

Meanwhile, the sentimental favorites--the Two Titan wings--in their final and 19th appearance in Olympic Arena, tied for second place with 2,799 points each, compared to 2,806 for the winner. The occasion was certainly a fitting farewell for the Titan weapon system.

The closeness of the scores, only 101 points between the first and last place teams, attested to the high degree of professionalism exhibited by the competitors, truly the "best of the best." Major General Jack L. Watkins, 1STRAD Commander since 1980 and the base host for Olympic Arena, commented that the 1986 contest was better than any other one in his memory. General Larry D. Welch, SAC's Commander in Chief, made a special presentation of Titan recognition plaques to the 308th and 381st Strategic Missile Wings in honor of their participation in Olympic Arena.

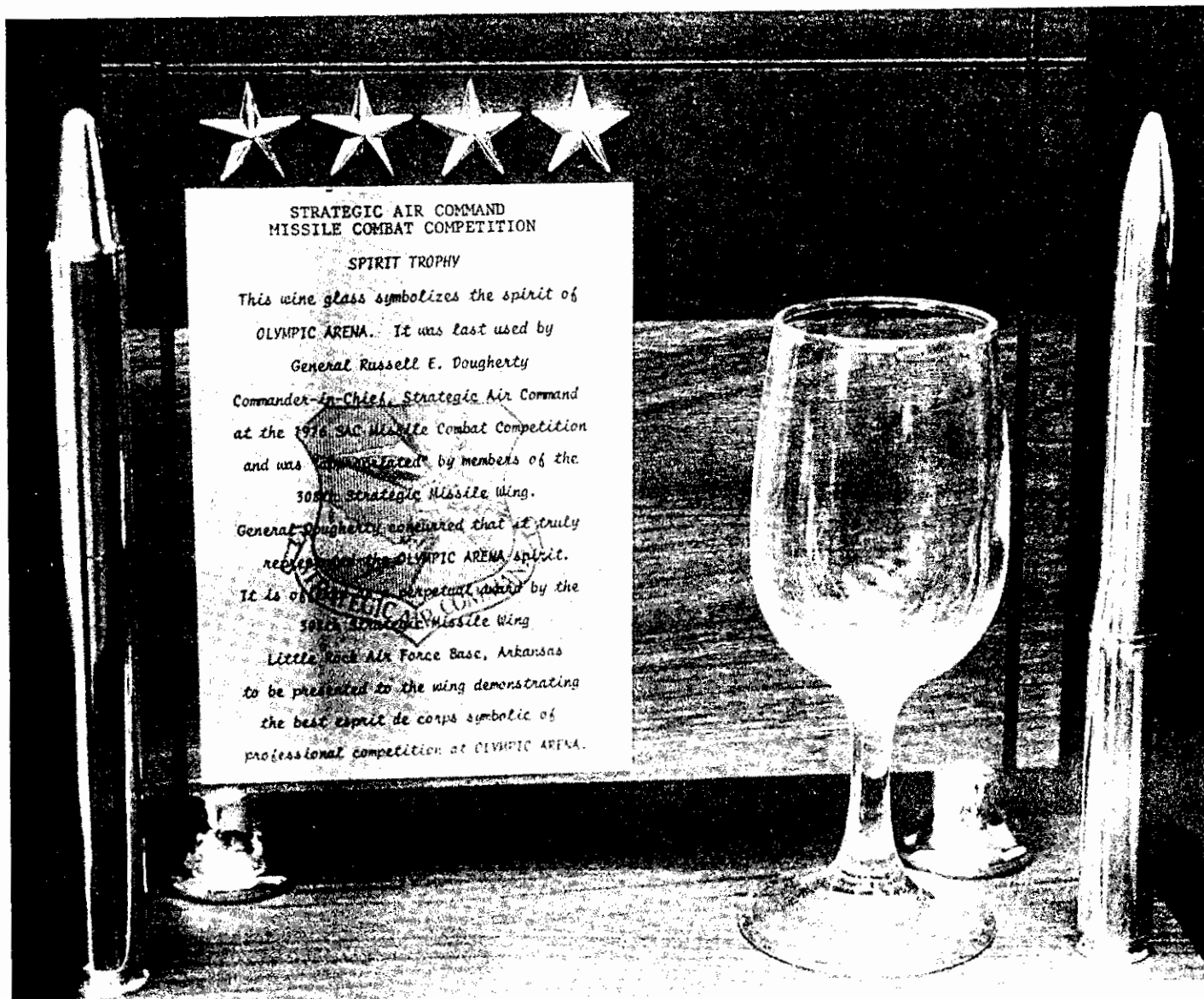
Notable innovations during Olympic Arena '86 were introduced by the 381st SMW Missile Maintenance Team. Using a universal socket with a welded allen stock to install the interstage transportation lug bolts, the team also applied a specially-designed two-inch torque adapter to the bolts, that allowed easy installation by team technicians.

Alas, the return to the nickname "Olympic Arena" was indeed short-lived! The 1987 missile combat competition, "Olympic Shield," will be conducted at California's Vandenberg AFB, 1 through 7 May. Therein lies the saga of "Olympic Arena, SAC's Missile Combat Competition."

BLANCHARD TROPHY WINNERS

<u>YEAR</u>	<u>UNIT</u>	<u>WEAPON SYSTEM</u>
1986	341 SMW, Malmstrom AFB	Minuteman
1985	308 SMW, Little Rock AFB	Titan
1984	90 SMW, F.E. Warren AFB	Minuteman
1983	381 SMW, McConnell AFB	Titan
1982	44 SMW, Ellsworth AFB	Minuteman
1981	351 SMW, Whiteman AFB	Minuteman
1980	381 SMW, McConnell AFB	Titan
1979	390 SMW, Davis-Monthan AFB	Titan
1978	91 SMW, Minot AFB	Minuteman
1977	351 SMW, Whiteman AFB	Minuteman
1976	341 SMW, Malmstrom AFB	Minuteman
1975	381 SMW, McConnell AFB	Titan
1974	321 SMW, Grand Forks AFB	Minuteman
1973	90 SMW, F.E. Warren AFB	Minuteman
1972	381 SMW, McConnell AFB	Titan
1971	351 SMW, Whiteman AFB	Minuteman
1970	44 SMW, Ellsworth AFB	Minuteman
1969	321 SMW, Grand Forks AFB	Minuteman
1968	NO COMPETITION*	
1967	351 SMW, Whiteman AFB	Minuteman

*Due to command involvement in the Southeast Asia conflict, the competition was not held.



STRATEGIC AIR COMMAND
MISSILE COMBAT COMPETITION

SPIRIT TROPHY

This wine glass symbolizes the spirit of OLYMPIC ARENA. It was last used by General Russell E. Dougherty, Commander-in-Chief, Strategic Air Command at the 1976 SAC Missile Combat Competition and was presented by members of the 308th Strategic Missile Wing. General Dougherty considered that it truly represented the OLYMPIC ARENA spirit. It is now a perpetual award by the 308th Strategic Missile Wing, Little Rock Air Force Base, Arkansas to be presented to the wing demonstrating the best esprit de corps symbolic of professional competition at OLYMPIC ARENA.

SPIRIT TROPHY

