This is the "Year of the Alert Force" in Strategic Air Command.

ON ALERT

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"THE SAC alert crews may be the 'tip of the spear,' but there is ten feet of spear behind it," said 2d Lt. Terry Hesterman, a missileer with the 564th Strategic Missile Squadron at Malmstrom AFB, Mont. Lieutenant Hesterman was referring to the support force—maintenance and security people, cooks, weather forecasters, and many others—who keep the aircraft and missile alert crews operational and ready to carry out their EWO (Emergency War Order) tasking should the grim necessity ever come. He also meant the families of the alert crews, whose understanding and support is often forgotten.

This month, Strategic Air Command begins its thirty-first year of alert. Gen. John T. Chain, Jr., SAC's Commander in Chief, has declared 1988 the "Year of the Alert Force." For a firsthand picture of life on alert, AIR FORCE Magazine visited the 341st Strategic Missile Wing at Malmstrom and the 410th Bombardment Wing at K. I. Sawyer AFB, Mich., both typical SAC wings.

An Awesome Responsibility

"Nobody wants this much responsibility," said 1st Lt. Scott Patnode, a KC-135 aircraft commander at K. I. Sawyer. "But somebody has to do it. We hope we never *have* to do our jobs." Added 2d Lt. Kate McGraw, a deputy Minuteman II launch officer with the 490th SMS at Malmstrom, "The fact you might have to actually launch nuclear missiles is always in the back of your mind. But putting it into perspective, I'd rather be a part of defending the country than wondering if [an attack] will come and not being able to do anything about it."

The missile crews do know where their ICBMs are targeted. The planning and intelligence sections on the bomber side work together to assemble the "bags" (big, leather briefcases) with detailed route and target information, as well as the "go codes" that tell the crews that the order to proceed to the target is a valid one. The crews study these maps and routes and get full briefings while on alert.

Security is tight, including personnel security. Where control of or access to nuclear weapons is possible, the "two-person concept" is in force. No one works alone, which practically eliminates any opportunity for sabotage or an unauthorized launch attempt.

Strategic Air Command is winding up the "Year of the Alert Force" honoring SAC crews, technicians, and support force. On the front lines are "crew dogs" like 2d Lt. Kate McGraw (seated) and 1st Lt. Chris Harrington of the 490th Strategic Missile Squadron at Malmstrom AFB, Mont. Their job is to watch over and, if necessary, launch live versions of this inert Minuteman II ICBM (above). The missile and its suspension ring can be seen at the bottom of Malmstrom's T-9 training silo.


HARRINGTON

Each missile Launch Control Center (LCC) controls ten missiles, but also monitors another LCC's missiles. If one crew should attempt to launch when no order had been given, another crew miles away could prevent them from doing so.

There are positive control procedures for bombers, too, preventing the unauthorized "scrambling" of crews to their planes or, once airborne, from arming weapons or proceeding into enemy territory.

Basic to this security is the Personnel Reliability Program (PRP), started in 1962 by Gen. Curtis E. LeMay. It keeps close watch on bomber and missile crews, maintenance troops, security police, munitions handlers, and everybody else who works around nuclear weapons.

One similarity between bomber and missile alert is the EWO certification process. Each member of every missile, bomber, and tanker crew must give a briefing to a senior-level wing officer. "We try to get the wing commander in for EWO certification to emphasize to the crew member how important the mission is," said Lt. Col. Chuck Masonic, the 410th BMW's chief of operations and plans.

Much of the equipment, especially in the communications area, is the same in the missile launch capsules and in the command posts of the bomber wings.

There are several types of communications systems, ranging from voice (Primary Alerting System, or PAS), to low-frequency transmissions (Survivable Low-Frequency Communications System, or SLFCS), to satellite communications (AFSATCOM), providing redundancy in any contingency.

Another similarity is that missile crew members and alert command post controllers carry the same handguns. (SAC is switching from .38-caliber to 9-mm sidearms.)

Because Boeing built most of the Minuteman LCCs and all of the KC-135s (as well as the missiles and B-52s), the sliding seats in both the Launch Control Centers and the tankers are also quite similar to each other.

The crew force does not work alone. It is supported by thousands of dedicated people behind the scenes. The total team effort keeps the deterrent viable. Here A1C Todd Buchanan and A1C Todd Kari work in the newly refurbished jet-engine shop at K. I. Sawyer AFB, Mich.

But flyers and missileers are different breeds of "crew dogs" (as they call themselves). They kid each other whenever they get a chance. The missileers like to say that "bombers are fun, missiles are important."

Providing the Impact

"Sometimes the tip of the spear forgets to thank the people providing the impact," said Lt. Col. Brian Horst, Commander of the 46th Air Refueling Squadron at K. I. Sawyer. "The alert crew is only one cog on a very big wheel. For sure, you aren't going to go anywhere without maintenance."

Before the bombers and tankers are put on alert, they go through an intensive series of checks that lasts up to two days. On the B-52's Last Sortie Before Ground Alert (LSBGA), the plane's Offensive Avionics System (OAS) is given a final tune-up, and simulated weapons releases are made. Then the planes are moved to the Alert Aircraft Parking Area (AAPA), where they remain on five-minute alert for up to ninety days.

When the aircraft is on alert, the crew chief (or the assistant crew chief) is on alert with it. The crew chief preflights "his" aircraft every morning by powering up the plane, checking systems and equipment, and doing any maintenance that is required. "It is amazing to me that just sitting there, things on the aircraft break," said A1C Anthony Uranger, a B-52H keeper at K. I. Sawyer.

If the crew chief working alone can't fix a broken system or part, a specialist technician can be called in to help. The problem has to be corrected in four hours, though, or the airplane will be pulled off alert.

"A storm comes in, the missile sites go down, we go out," said A1C Timothy Mouchi, a field maintenance technician supervisor at Malmstrom. "When we start servicing, we never know when we are coming home, if we'll need cops, or when we're going to have to RON [remain overnight]."

The biggest problem for both missile and airplane maintainers alike is that their equipment is old, creating some reliability problems. "Thirty-year-old aircraft tend to break by themselves," said SrA. Andrew

On occasion, Minuteman III crew members like 2d Lt. Chris Sharpe (right) have to use the services of Detachment 5 of the 37th ARRS and its Bell UH-1N helicopters (below) to get out to their Launch Control Facility. Mostly, though, the crews drive out to the field, and the helicopters are used for "cop swaps" and assisting in priority maintenance.

Neher, a KC-135A maintainer. "We've run so many sorties on them that something has to give sooner or later. You've got to pay more and more attention to them."

Spare parts are often a problem, especially with the missiles. "A lot of items are just not available," said SSgt. Dean Wells, a technician with the 341st Organizational Maintenance Squadron. "To get spares for the T/E [Transporter/Erector—how the missiles are transported and put into their launch facilities], we have to cannibalize from one of the others." Added Col. Edward Burchfield, the 341st SMW's Vice Commander, "When I was on alert, we couldn't touch anything. Partly because spares are short, now we have crews bringing [equipment] drawers back from alert so we can fix them."

Supply squadrons spend a lot of time on the phone tracking down spares from other bases or from the depots. To improve parts availability for aircraft, SAC adopted the Readiness-Oriented Logistics System (ROLS). Supply is located near the flight line so spares can be obtained quickly. For routine maintenance, mechanics can use the Parts Store's drive-through or walk-up windows. Parts for the alert aircraft are delivered.

Missile maintainers don't have a Parts Store, but priority maintenance at Malmstrom is greatly aided by Detachment 5 of the 37th Aerospace Rescue and Recovery Squadron. These Military Airlift Command UH-1N helicopters take parts and people to the silos, which are spread over Malmstrom's 23,000-square-mile complex. The helicopters also perform "cop swaps," ferrying security policemen to and from the LCF (Launch Control Facility, the topside building at a missile site).

The security flights guard the area around the LCF and control access to the Launch Control Center. "We'll get an OZ [Outer Zone—the area between the fence and the actual missile silo] alarm in the capsule, and we'll have to send cops out to check," said Capt. Bill Molter, assistant operations officer of the 564th SMS. "Nine times out of ten, it will just be a gopher, but the cops have to go out and check it."

Other security police, or SPs, working out of campers in two-man teams, guard the Launch Facilities (LFs) when the intruder-detection system breaks down. The campers come complete with a gas stove for

cooking. "A lot of people want to stay out there," said CMSgt. Jesse McMurtry, the 341st SMW's senior enlisted advisor. "They are their own bosses out there. Surprisingly, that's where some of our youngest troops are."

SPs working around the alert aircraft see less of the countryside. Even though the AAPA is fenced in and has closed-circuit TV surveillance and a pressure alarm system outside the fence, the SPs still set up an inner security zone around the aircraft. There is also a rifle squad in a Peacekeeper armored vehicle stationed in the compound. The SP force is usually tested once on every eight-hour shift.

"If it's snowing outside and nobody can move, the SPs will come and get us," said SSgt. Allan McFerran, the food-service supervisor in the alert facility at K. I. Sawyer. "It shows how important we are." Chief McMurtry agreed. "The cooks set the whole tone at the LCF. The first thing the SPs do when they get out there is ask, 'Who's the cook?' They know who the good ones are."

The traditional image of the bomber alert is of crews making a mad dash to the planes or the trucks that will take them to their aircraft when the klaxon sounds. Above, one of the 410th Bomb Wing's B-52Hs sits on the alert pad.

Off to Work

At a bomber wing, about 1,300 people directly support thirteen alert aircraft. In a missile wing, nearly 2,100 people support 200 missiles. It is only a matter of degree, but the missile folks seem to have a greater sense of urgency—once launched, a missile can't be recalled.

"This is a stressful job. You're always under the microscope," said 1st Lt. Chris Harrington, a combat crew commander with the 490th SMS. "If you screw up on this job, you are screwing up with nuclear missiles." Or with nuclear bombs, as is the case with the bombers.

"It is a lot harder on missile crews these days," noted Colonel Burchfield. "Getting message traffic used to be a big deal. Now there is so much message traffic to make sure they get the word, that the crews are busy all the time. The systems break down much more frequently, and they always have to watch for things like that."

The real addition to the bomber crew's work load, however, has come from the increased emphasis SAC has put on its conventional mission. "The crews have a good time with conventional ops," said Lt. Col. Dave Knowles, Commander of the 644th Bomb Squadron at K. I. Sawyer. "They get to play Red Flag, drop bombs, and get the benefits from lots of training. The challenge is tremendous, though, to be proficient at both nuclear and conventional operations."

"In previous years, before cuts in personnel levels, we had the luxury of extra people," said Col. Al Joersz, the 410th BMW Commander. "Now we don't have the luxury of all the people carrying their fair share. We're all hustling and doing the best we can to be a productive work force."

Going to the missile fields, the deputy missile crew commander usually picks up the truck, then heads to the operations building where crews first meet with their squadron (Pre-Predeparture), then with the rest of the alert crews from the other squadrons (Predeparture). Here they are given a briefing on conditions (road and weather), where the camper teams are, and other special interest items. There is a classified briefing as well.

The crews then take off for LCFs, which at Malmstrom may be anywhere from one hour (Alpha-01) to four hours (Oscar-01) away from the base. The crews put 6,000,000 to 10,000,000 miles per year on the vehicle fleet. Driving out to the LCFs, the crews pass several missile silos that are just off the road. One LF at Malmstrom is literally in the back yard of a convenience store.

Once at the site, the new crew checks the seals on the equipment and takes an inventory of the classified material before the other crew leaves. The outbound crew leaves by an elevator (the LCCs are between sixty and 115 feet deep). Then the 110-ton blast door is shut.

Sometime after assumption of alert, the deputy sleeps (conditions permitting) in the bunk in the LCC. About 10:00 p.m., the commander hits the sack, which is in a cubbyhole in the Minuteman II LCCs and has a good bit more space around it in the Minuteman III capsules. The commander usually drives back to the base when the alert shift is over.

The missile crews are on alert for twenty-four hours eight times a month. Briefings, travel, and swap-out add considerable time, so the crews are away from home for sixteen days a month. On other days of the month, they train or stand by to substitute as needed.

The crews have to get a prescribed number of hours in the Missile Procedures Trainer (MPT), an LCC simulator, every six months. "We give them problems not normally encountered in the field," said Capt. Larry Grundhauser of the Operations Training Division at Malmstrom. "They could [stand] 300 alerts and never have to replace a circuit breaker. They will likely never see an unauthorized launch attempt." The primary training emphasis is EWO procedures. At least annually, the crews go through an exhaustive evaluation.

The missile maintenance crews have their own simulator to practice on. The T-9 is complete, down to the heavy blast door covering the silo. Every phase of operations, including emplacing the training round and attaching simulated reentry vehicles (RVs), can be carried out.

Alert for the bomber and tanker crews is considerably different. At

K. I. Sawyer, assumption of alert is on Thursday. After swapout, the alert crews can leave the compound, but they are tied to the AAPA by a short leash.

The crews must sleep in the alert facility, but other than a morning briefing and their daily training schedule, they can go anywhere on base where there is a klaxon. However, they must go in government vehicles (rather than their own cars) so their whereabouts can be tracked.

Training for B-52 aircrews consists of EWO study, escape and evasion procedures, and, at many bases, time in the full-motion, six-axis Weapon System Trainer (WST), which is so realistic it can be "crashed." The whole six-man B-52 crew can train at one time in the WST. Tanker crew training is similar.

A relatively new area for SAC aircrew training is tactics. "Our crews had gotten in the mindset that if you had to go to war, you were as good as dead," said Lt. Col. Bill Barton, the chief of the 410th BMW's tactics branch. "They now think that they can take on the enemy, beat him, then go hit their targets." There are even tactics classes for crews on the unarmed tankers. "Tanker tactics are basically to run, but there are some real sneaky things they can do," noted Colonel Barton.

Key Ingredients

Initiatives in the "Year of the Alert Force" have gone a long way toward improving the conditions in the LCFs and alert facilities. There are game tables, big-screen TV sets, and VCRs. Most LCFs have a satellite dish, and the launch crews will soon be getting larger TVs (the ones in the facilities now can hardly been seen from the deputy's chair) and a splitter cable so the people downstairs can watch one show while the folks upstairs watch another. Weight rooms are set up in all alert facilities and are coming to the LCFs.

The launch crews have another pressure vent called the "Captain's Log." This notebook is filled with just about anything the crew member wants to say. There are cartoons with names and captions changed, anecdotes, and some general letting off of steam.

Alert crews can phone home, and airplane crews can see their families at visitation centers. The visitation center building, located near the alert compound, has a kitchen, a large den area with TV, and several rooms where families can dine in privacy.

"This place kind of defeats the purpose sometimes, though," noted Debbie LaPiana, wife of 1st Lt. Peter LaPiana, a KC-135 copilot. "Sometimes the stress builds, with kids running around, the noise, and not really being able to relax with everything going on here. Still, I am glad they have this place. It's good for the families to get to spend some time together."

Alert affects the families just as much as the crew members. "My son's first words were 'Daddy 'lert,' " said Elizabeth Danforth, wife of Capt. Steven Danforth, a B-52 pilot. "There is a period of adjustment every time he goes on or comes off alert."

Holidays are tough, too. "It was kind of lonely on Christmas," noted Candy Molter, wife of the 564th SMS's Captain Molter.

Despite the hours and conditions (K. I. Sawyer had 210 inches of snow in 1986), most of the people making up the alert force like their jobs. "I go out and get it done. I always feel real good when I go home." Added Airman Neher, "I get tangible results. That tanker goes up, and it's something I did. I put it there."

Women are very much a part of the alert force these days. There have been a few adjustment problems for the women, some from older hard-line chauvinists, but mostly in terms of facilities. Other than that, they have assimilated well into the tanker and Minuteman crew force and are regarded as "just another crew dog." That may be the ultimate compliment.

Training plays an important role in the lives of both maintainers and crews. Here, Sgt. Bill Matthews (left) and Amn. Jonathan Wood (right) train topside at Malmstrom's T-9 facility. The 110-ton blast door covering the top of the silo must be closed with a hydraulic unit known as a "pipe pusher" that moves the door three inches at a time.

Change for the Better

"We are doing some little things that are generating a lot of payback for a minimal effort," said Colonel Knowles. Some examples:

- The tires on the SPs' Peacekeepers are being changed from solid rubber to regular inflatable tires.

Tankers are an essential adjunct to the bombers. When a plane is on alert, its crew chief (or the assistant) stays on alert with it. Here, the crew chief, with some help from other maintenance troops, finishes preflighting one of K. I. Sawyer's alert KC-135As. The alert aircraft are preflighted every morning, regardless of weather.

The ride is much smoother, and the SPs are very happy.

- The crew vehicles for the missile alert crews are getting AM/FM radios, cruise control, and air-conditioning. Not that important until you drive 140 miles each way without them.
- The cooks at the alert facility at K. I. Sawyer are being rotated for duty at a nearby four-star restaurant. The extra experience they gain is making for a much higher quality program in the alert facility.

"The crew and the crew chief merge through the nose-art program," said Lt. Col. Mike Link, Operations Officer of K. I. Sawyer's 307th AREFS. This program has been a big morale booster.

Once a design has been picked by the crew and the crew chief and approved by the field maintenance squadron, it is advertised, and artists are found to paint it. The logo on the KC-135 "North Wind" was painted by an NCO out of the photo lab.

A major change for all squadrons was the addition of an adjutant who handles administrative and "additional" duties that the launch crews were previously required to perform.

Another major effort spreading through SAC is self-help.

"It became a competition among the alert crews to see who could get the most done to the squadron building in a weekend," said Colonel Knowles. The supply squadron at K. I. Sawyer added a second story to their offices, and the jet-engine mechanics saved $77,000 by redoing their floor with a light-reflective material themselves.

The ultimate self-help effort, however, has to belong to the 301st Air Refueling Wing. This new wing at Malmstrom, which was not to get its first KC-135R until October, built *everything* it needed to be an operational wing. The wing started with a condemned hangar and then built shops, offices, and conference rooms, finishing the job for less than $200,000.

The major changes to the alert force came from the crews themselves. As part of the "Year of the Alert Force" effort, the crews were given the opportunity to start an Airmanship Program. "I was astounded at the things they came up with," said Col. Bob Summers, Commander of the 564th SMS at Malmstrom.

Some of the changes that have already been implemented: elimination of gender-specific crews (which were a scheduling nightmare); changing crew selection for the annual "Olympic Arena" competition, including line crews at all SAC conferences affecting crew procedures; giving crews recognition with 100/200 alert certificates and pins and end-of-tour certificates; and getting issue glasses changed from thick, black, plastic frames to wire-rims.

The missile crews have also been influential in getting evaluations changed from numerical scores (anything below ninety percent was failing) to simply Pass/Fail. "This 'clean sheet' approach will see if the crews are combat-ready," said Lt. Col. Conrad Strickland, the 12th SMS commander at Malmstrom. "Not whether they are 97.7 percent perfect, but if they can fight the war."

Under one of the Airmanship Initiatives the airplane side came up with, both crew proficiency and Aviation Career Enhancement (ACE—a program in which copilots practice being aircraft commanders in T-37s) flights can now be made while on alert. The crews fly for a short time in an off-alert bomber or tanker in the area around the base. Since this is such a radical change, SAC is edging into this program slowly.

While changes are being made in alert, one thing won't change. As Lieutenant Hesterman says, "Alert is ordinary people doing an extraordinary job." ■