

Airborne Command & Control Assn.

Volume 5, Issue 3

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Recording, Preserving and celebrating the Legacy of PACCS



Your Officers

President Jim Spence
Vice President Don McClain
Treasurer Fred Kemp
Secretary Steve Leazer
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Welcome!

Over the last couple of months I've received the names of several former participants in the Airborne Command Post operation. Some are from Logistics and some are former In-flight Maintainers. In the hope that they may find an interest in our association I have included their names in this mailing. So ... if you are one of those that are wondering where this newsletter came from ... now you know. You, of course, are under no obligation. If you aren't at all interested in the ACCA, please take the time to let me know. If on the other hand you would like to become a member there is an application sheet complete with mailing instructions at the back of this newsletter.

Dues

Your Association needs your participation both financially and personally. Please take a moment to look at your mailing label. The two digits to the right indicate the current dues year. Note that dues for 2000 are due in

April. If your label does not show at least '99, we could use a little help. If the year shown is not correct please let Fred Kemp know ... he is the keeper of the money and the associated records. You'll find Fred's address on the application for membership on the last pages of this newsletter. I am the keeper of this database so when Fred gives me the word I'll change it. Then you can beat on me. This Association can not succeed without you.

Speaking of dues and welcome. We have a plan for those of you who join ACCA, or pay your 2000 dues. We are looking at acquiring some pins with the ACCA logo for your hat or lapel. When you pay your dues (including those who have already paid their 2000 dues you will get one by return mail. I'm working on the acquisition now so that's why it is a plan. I expect this to be working in the next couple of months. Additional pins will be available for a fee.

In this Issue

Another fine, well-researched article by Greg Ogletree entitled SAC's Four-Digit PACCS Units. On the mailing cover page you'll see the art work he produced, representing three of the units who flew the EB-47L.

The Last Reunion Picture

For those of you who participated in the photo op at the last reunion; Fred Kemp is trying to identify all of you. So ... if you were there and participated in the photo please drop Fred a line and tell him where you are in the picture. Ok ... here's how to help him out; Start with the bottom row as row one and number up from there. Indicate a position left or right along with the row number. The goal is to i.d. everyone including spouses before the next reunion. A tough chore for Fred. My problem is I don't have a copy of the photo so I can't give grid coordinates anyway. Since we all look exactly as we did 20 to 30 years ago, I don't know why he is having this problem ... must be his eyes.

Stories

The Secretary is responsible for the publishing of the newsletter. That means that I need your help. Many of you have some tales to tell that are of interest to our membership [I heard some of them at the ACCA reunion, and at the recent 34th ARS reunion a few weeks ago.]. Soooo, please get them to me at the publication address listed in the last pages of this newsletter, or send them email to leazersd@thegrid.net. You can write the story as an email, attachment to an email, or do it the old fashioned way and write it with a pen/pencil and mail it to me. I prefer the electronic means because I can easily paste it in without having to type it, but I'll take what I can get. I use, or have access to MS Word 97, AmiPro, Lotus Word Pro 96 or MS DOS text. If it is in some other format, let me know in advance so I can attempt to find a way to convert it.

Farewell & Hello Again

By Steve Leazer

It seems like only a short time ago that I attended the Looking Glass Farewell. In fact it was a year ago in September. That was a bittersweet time for me. It was my first return to Offutt since 1965. And, of course, I got lost (funny ... it doesn't look the same after 30+ years). The first of several highlights for me was seeing 048 in the hanger where the turnover ceremony took place. Unless it's a different 048, I flew many times on that bird. Strange how the crews and maintainers I saw in the area where the ceremony took place seemed to have gotten so much younger (couldn't be my age I'm sure).

If you were at the banquet at the SAC museum you know that another of that same series (049) is now a part of that museum. After the dinner, some video highlights, and some speeches, the lights dimmed, the hanger doors opened and there she was. After the ceremonies, we filed aboard through the front cargo hatch, for a walk through time I thought "déjà vu..." The electronics have changed some, but the same old (really old) electronic switchboard was still there as was the multiplex equipment bay ... the same as 30+ years ago. It was state of the art at the time, but that was then. All of you who have flown or worked on and around old aircraft know the smell. Those that haven't probably don't find it pleasant. By now you probably wonder why I'm telling this tale.

This September I had the privilege of returning once again to the SAC museum in conjunction with the 34th ARS reunion. If you haven't visited the SAC Museum which is east of Omaha at Ashland NE, you have missed

a great opportunity. Since I didn't see 049 in either of the two hanger bays or the restoration bay, I decided to walk around back and see if it was there. Sure enough it is sitting out in back in a corner, with wings still off, awaiting restoration. Someone at the museum told me that it was next for restoration, but I could not confirm that. I do look forward to that day when 049 will take its rightful place in the museum

The Looking Glass aircraft along with Stepmother, Grayson, and Achieve were a very great piece of our heritage. I would be remiss not to mention the EB-47s and later EC-135s that provided radio relay support to this mission. Coast to coast ultra high frequency (UHF) communication was not possible in the early years without these relay aircraft and the real live professionals that flew them. Let's also not forget those many other professionals who put them in the air and kept them there for all those long days and nights.

When I think of the hundreds, maybe thousands of Combat Crews, Battle Staff, Maintainers, Crew Chiefs and so many other support personnel who were devoted to this mission it is hard to not be overwhelmed ... such an awesome responsibility on so many people. How can one not view this undertaking with awe? And this is but one of the many missions performed by SAC personnel. We have a right to be proud of our accomplishments, of those who came before and of those who have come since! SAC may be gone, but we are still here and we know ... let's make sure it is not forgotten.

While I have the floor (so to speak) let me add that the recent resounding success of the 34th ARS reunion was due to the same kind of leadership and planning that accomplished the mission I've just talked about. It was ably put together by former members of the 34th ARS, many of whom are also members of the ACCA. Rick Leech was in command of that production and a great support staff put it together. My thanks to Rick and all those in support for a job well done.

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General correspondence, Changes of mailing address, newsletter articles or recommendations.
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SAC's Four-Digit PACCS Units

The shortest-lived units in SAC's Post Attack Command Control System were those which flew the highly modified B-47s during the early 1960s. Little is known about these mysterious squadrons and even less has appeared in print. Most articles on the Boeing B-47, even those claiming to include information on the many "variants," don't even mention the PACCS role for the *Stratojet*, and those that do usually sum it all up in one short sentence. This article will finally shed some light into a corner of SAC that has been dark far too long.

When SAC began continuous airborne alert of its airborne command post in 1961, it addressed a survivability concern but it did little to deal with the problem of how to communicate with bombers waiting to launch at a base with a dead (i.e., "knocked out") communications system or with those, just launched and en route to their positive control stations. At that time, the command placed much reliance on its SAC Auto-mated Command and Control System (SACCS) and Primary Alerting System (PAS) to issue the "go code," but when it became clear that an electromagnetic pulse would most likely disable these land-line systems with the first nuclear detonation (NUDET), engineers and analysts scrambled to ensure reliable redundancy. Satellite communications was still in its infancy and effective high-frequency (HF) propagation in an atmosphere ionized by NUDETs was problematic. Ultra-high frequency (UHF) radios provided the best insurance for reliable wartime communications, but UHF was effective for line-of-site only. That made altitude a primary factor for maximizing range, and multiple airborne platforms could expand the effective range considerably. In the early 1960s, there were barely enough modified KC-135 tankers to support *Looking Glass* operations, but B-47s were already on their way to the "boneyard," being rapidly but methodically replaced by B-52s and B-58s. It was an easy decision to divert a quantity of the Stratojets for modification to support SAC's communications relay mission until more KC-135s became available. Ergo, the Pipecleaners!¹

The first B-47E selected for this conversion (52-292) was flown by a hand-picked crew of the 4347th Combat Crew Training Wing to the facilities of

Tempco Aircraft Corporation at Greenville, Texas, during the autumn of 1961². This crew and another, with a second modified aircraft, conducted numerous flights, testing the system. A representative from Electronic Communications, Inc. (ECI) also flew on these missions, making the aircraft just a little crowded. ECI, of St. Petersburg, Florida, was the manufacturer of the FM multiplex relay radios which clipped into the bomb bays in pressurized containers³. Conversion of 33 other B-47E bombers commenced in 1962 to support the Post Attack Command Control System⁴. These aircraft received the EB-47L designation when conversion was complete.

Four squadrons were organized and activated by SAC to fly these special aircraft: the 4362d, 4363d, 4364th, and 4365th Support Squadrons. By authority of HQ SAC Special Order G-65, dated 5 July 1962, these four squadrons were designated and organized, effective 20 July 1962. Each unit was authorized 54 officers and three airmen, but unit rosters indicate that there were rarely more than 40-45 officers actually assigned⁵. The 4362d was assigned to the 818th Strategic Aerospace Division and attached to the 307th Bomb Wing (Medium) at Lincoln AFB, Nebraska; the 4363d was assigned to the 801st Air Division and attached to the 376th Bomb Wing (Medium) at Lockbourne AFB, Ohio; the 4364th was assigned to the 813th Strategic Aerospace Division and attached to the 9th Strategic Aerospace Wing at Mountain Home AFB, Idaho; and the 4365th was assigned to the 820th Strategic Aerospace Division and attached to the 380th Bomb Wing (Medium) at Plattsburgh AFB, New York.

According to Colonel Don Burger, the 4363d "was the lead squadron and did almost all the initial work with SAC, Boeing, TEMPCO, and ECI ... to wring out the modified EB-47L and the multiplex FM radio relay equipment. They also developed and wrote the T.O.s, ops manuals/procedures, checklists, etc., and trained/qualified the first crews at the other three units so they could form up."

A normal crew consisted of the pilot, co-pilot, and navigator. However, as mentioned above, there was room for a fourth person on the floor beside the co-

pilot and, occasionally, if there were recurring equipment problems, one of the electronics technicians would go along to trouble-shoot. Nevertheless, since the relay radios were inaccessible while airborne, such ventures usually were for naught⁶. The co-pilot also served as the communication relay system operator. He operated the equipment by rotating his seat 180 degrees to face aft, providing access to the radio controls which were in the old gunnery position. He had control of three AN/ARC-89(V) receivers, two of which were on line and one spare, and coordinated the radio link on Prime 1, Prime 2, or ADMIN. He also had a 5-minute tape recorder at his disposal⁷.

Nine aircraft were assigned to the 4362d to accomplish the unit's mission, but because of delays due to the modifications, it was some time before the unit had a full complement. The 4363d reportedly had 10 aircraft assigned⁸. Several aircraft sorted from each base for a typical exercise mission (Lockbourne launched three)⁹.

The mission of the 4362d was "... to provide survivable UHF communications links between the Airborne Command Post and Strategic Air Command aircraft over the Continental United States and Canada."¹⁰ It seems likely that the missions of the other three PACCS units were similar if not identical. Burger writes that "The SAC wing commanders at the four bases provided [us] only with administrative, personnel, and maintenance support, but had no operational control over us. OpCon passed directly to the [squadron commanders] from the HQ SAC Command Center. Even [the numbered air forces] had no OpCon over us, although we did *quasi* work through their command centers."¹¹

The alert routine for the 4365th was probably typical. A former member tells of sitting alert for seven days at a time. "We were unique to the alert system because we would actually launch when the klaxon rang.... The bomber crews on alert didn't appreciate reporting to their aircraft and watching only the PACCS aircraft taking off." This sentiment lingered well into the EC-135 era too! He continues, "A typical mission would include in-flight refueling,

navigation legs, pilot proficiency requirements, and going to a designated orbit area to establish radio contact with *Looking Glass* and other airborne systems. After the mission, we would debrief and return to the alert facility to go back on alert with the bomber crews."¹²

Carrying the radios in the bomb bays presented some chronic challenges. Thomas Bowman, a former maintenance technician in one of the squadrons, writes: "Being an unheated and unpressurized area, condensation was a major factor in loss of equipment and link downtime. After every mission, a normal recovery consisted of opening the bomb bay and pod doors to find lots of water and pink [i.e., saturated] desiccant containers. This meant that all the equipment had to be removed to the field shop for drying out and operational testing before reinstalling on the airplane. A monumental task to say the least!"¹³

On 1 January 1964, all four "Support Squadrons" were redesignated Post Attack Command Control Squadrons (PACCS). The rationale for this change is unclear, but the name change certainly made the EB-47L mission much clearer to John Q. Public--and perhaps to Ivan too.

The 4362d and 4365th were discontinued on 24 December 1964. The two remaining EB-47L units weren't far behind. When the 801st Air Division was inactivated on 15 March 1965, the 4363d was assigned directly to SAC until the squadron was discontinued on 25 March 1965--a mere 10 days later¹⁴. The 4364th was also discontinued that same day. The EC-135s were now in service!

Although more than 2,000 B-47s were produced, few survived to be placed on static display. To the author's knowledge, no EB-47Ls remain. Perhaps the only tangible legacy of the EB-47L era, other than paper documents (and there are very few of those), is the unit patch. All four squadrons reportedly created distinctive unit emblems, although only one of those was officially registered and approved by the Air Force. The emblem of the 4363d Post Attack Command Control Squadron is officially described as follows: "On a red disc within a

black border three aircraft ascending vertically, two and one, each vertically divided gray and black, and three yellow lightning flashes, one and two, between the aircraft.

Significance: The emblem is symbolic of the squadron and its mission. The aircraft are symbolic of the vehicles used by the squadron in accomplishing its daily training and emergency war order mission. The lightning flashes represent instant communication from aircraft to aircraft. The red background reflects the courageous tradition of the United States Air Force in defending its country. The emblem bears the squadron color, black."

The stamped date of approval did not reproduce well on the photocopy so the exact date is uncertain, but it looks like it might be 1 Jan 1965. The letter from the unit requesting approval is dated 14 Jul 64 and processing time generally requires several months, so it seems likely that the emblem was approved sometime during the squadron's final 6 months. If it was, in fact, January, production of patches, especially in quantity, seems unlikely just before unit closure. On the other hand, units sometimes press forward anyway for the sole purpose of having a memento to place on a farewell plaque. The author has not seen any patches for this unit, but he has spoken with former members who claim they were produced. Likewise for patches from the other three PACCS units. Three of the four emblems are illustrated with this article. If any reader discovers one of these amongst his memorabilia, the author would very much appreciate a color photocopy for filing in the society's archives.

In closing, it seems appropriate to thank the men who flew and maintained SAC's elite *Pipecleaner* fleet. Remember the Cuban Missile Crisis? The EB-47L aircraft made a tremendously important contribution to our nation's strategic deterrent force during some of the hottest days of the Cold War!

Greg Ogletree, SAC ACCA Historian

END NOTES

¹ This origin of this moniker is unknown, but it may have been ascribed by one of the contractors for the aircraft modification.

The only extant source from that time containing this nickname is a thank-you letter, dated 27 Mar 1962, from SW Bishop, president of Electronic Communications, Inc. (sub-contractor for the relay radios) to the CINCSAC at that time, General Thomas S. Power. The letter lists aircrew members for "Pipecleaner Aircraft No. 1" and "Pipecleaner Aircraft No. 2."

² The crew consisted of Capt Fred S. Wattinger, Capt. William "Bill" D. Payton, and Capt Ben S. Greseth. (Ltr from Ben Greseth to author, dated 22 Nov 1995, w/copy of ltr, cited above, to Gen. Thomas S. Power)

³ "Post Attack Command Control ('Pipecleaner') Squadrons" - SAC ACCA newsletter, Vol. 1, Issue 2 (Oct 95), page 2.

⁴ Another source says the total number of aircraft converted to the EB-47L configuration was 33, but that author's accuracy is questionable because he states that conversion was conducted in 1963 rather than 1962 and he states these aircraft were flown by SAC reconnaissance units. ("Stratojet!" by Robert C. Dennison, Air Combat, July/August 1997, p.54)

⁵ No other historical information about these units is presently available, other than what appears in this article. Uncharacteristically, the Lineage and Honors files at the Air Force Historical Research Agency (AFHRA) do not even contain the names of the squadrons' commanders.

⁶ Ltr from retired MSgt Thomas E. Bowman to author, dated 7 Nov 95.

⁷ The purpose for this is unstated, but it may have been for recording and playback (i.e., rebroadcast) of an emergency action message, similar to the later Emergency Rocket Communications System (ERCS) deployed on some missiles. (Ibid.)

⁸ Refer to article cited in Note 3. Confirmed by information in Bowman Ltr (see Note 6).

⁹ Ltr from Bowman (see Note 6).

¹⁰ "History of the 818th Strategic Aerospace Division, 1-31 July 1962," page 5. This document has been recently reviewed for declassification and retains its overall classification. The quoted paragraph was still SECRET until 21 September 1999! (probably because of the reference to our northern neighbor).

¹¹ Source cited in Note 3.

¹² Ltr from Ben Greseth to author, 22 Nov 1995.

¹³ Bowman ltr (see Note 6).

¹⁴ Colonel Burger recalls that the 4363d was attached to the 301st Air Refueling Wing during those final days when the unit was assigned directly to SAC after the air division and bomb wing had been inactivated, but there is no official record of this in the files received from the AFHRA.

Pictures ...

We have looked, but much to our chagrin, there are no pictures of an EB-47L Pipecleaner in the ACCA archives. There are few out there anywhere apparently. So, if you happen to have some pictures, and the quality is good, we would greatly appreciate having a copy of them. For that matter, if you have pictures of Looking Glass or the Auxiliary Command Posts, the same holds true. I will most likely scan them if the quality will support that. If you need the pictures back, Greg Ogletree or I will see to that, but we would rather have pictures (or negatives) you don't need back. Send them to me and I will forward them to Greg.

As long as we are on the topic, if you have any documents or articles that shed further light on this mission, please send me a copy. -- Steve Leazer

Folded Wings

Gen. Bruce K Holloway: CINCSAC, Jul 68 - Apr 72 and a proud member of SAC ACCA. His early military career included flying with Chennault's Flying Tigers. It is thought that he came to SAC in 1968 from being Commander, USAFE. Col. Jack Gatewood, who had occasion to meet him while on active duty said of him "In my opinion, he was a true gentleman."

Mark Your Calendar for...

MONTGOMERY ALABAMA

4-8 OCTOBER 2000

Be sure to commence your mission planning so you will be ready to attend the forthcoming ACCA Reunion 2000. It is shaping up like a great event. Our President, Jim Spence, has fully involved with the initial preparation and has established solid contacts to support all phases of this mission.

There will be twenty-five rooms blocked for us at the Holiday Inn for those who don't wish to stay at the Embassy Suit. This is two blocks away, an easy walk to the events taking place at Embassy Suites.

Our Headquarters will once again be located at the Embassy Suites; fifty suites are to be blocked for us there. We had such great support from them at the 1998 reunion in Colorado Springs that we have elected

to stay with this winner. As in Colorado Springs, breakfast is available each morning. More on that later.

Located right next door to the Embassy Suites is the Montgomery Chamber of Commerce and Welcome Center. They will have welcome packages available to us that will provide further information about the area. Jim says that everyone he has contacted so far, both from Maxwell and from the town have been helpful and enthusiastic about our plan to visit.

Here's a peek at how the reunion program is shaping up as the planning continues.

Oct 2000

4th Wed. Registration, and reception. Social hour in the evening with light hors d'oeuvres.

5th Thu. Registration continues, social hour and buffet dinner this evening.

6th Fri Base Tour; possible options include NCO Heritage Hall, Gunter Annex, CMS School, War Gaming Center and lunch at the Officers Club. Evening riverboat cruise and BBQ.

7th Sat City Tour; possible options include Hank Williams museum, Civil Rights museum, Capitol. Business meeting, evening banquet with dancing to follow.

The city also has trolley service to many locations for those adventurous soles that want to set their own agenda.

8th Sun Memorial Service.

Note: That the day scheduled for the base and city tours is still fluid and may reverse, depending on availability of certain sites and interest of participants.

A day of golf will be offered if sufficient numbers are interested -- golfers, lets here it!

As I'm sure you are aware, if you attended the reunion in Colorado Springs last year, the location for the SAC ACCA Reunion 2000 was moved to the Southeastern United States. The intent is to afford those members who live in the South and the Eastern seaboard a greater opportunity to attend this event and to expose some of us to new sights. Last year was my first ACCA reunion and the wife and I enjoyed it immensely. We are looking forward to this one and hope you are too.

If you have ideas or comments regarding your preferences for any aspect of the reunion, please send me a letter, card, or email. If you have been to Montgomery and have additional recommendations for places of interest to go or things to see ... we need to know that. I will get your input to Jim. Let us hear from you! It will take all of us to make this another memorable event.

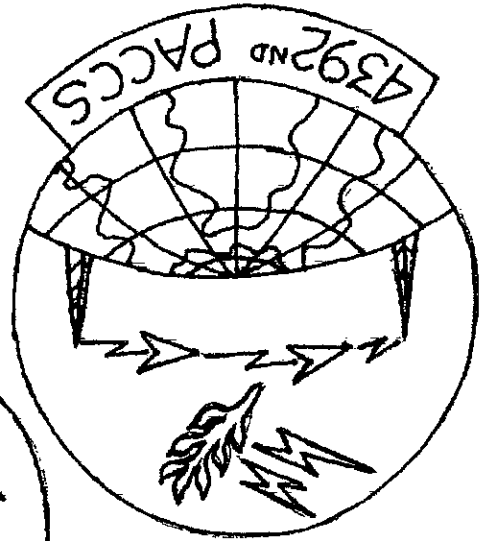
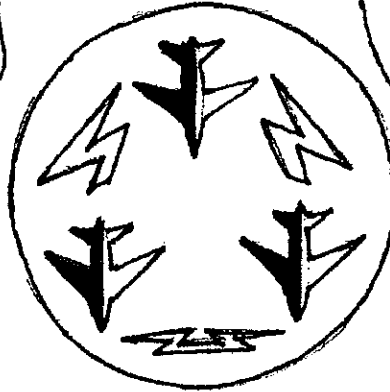
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EB-47L "Pipecleaner"



PACCS

4393RD



Patches of the

SAC

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