

# Unit History - 463rd Sub Depot



## 389th Bombardment Group

by Kelsey McMillan

*Behind the men who kept ‘em droppin’ were the men who kept ‘em flyin’, laboring with hundreds of skills and one purpose. Their initiative and inventiveness led them to design new tools, make their own equipment, develop new methods, and creatively solve problems. Their efficiency and productivity in the workshops ensured our bombers stayed out of the hangars and in the air. They worked with less acclaim and fewer medals. Yet, for every man who flew the heavies, a dozen men on the ground were needed to get them to the target and safely home again. Their contribution toward achieving victory was indispensable.*



463rd Sub Depot AFCE and Bombsight Shop personnel. Back row L to R: John F. Nelson (NCOIC); Edward N. Deck; and Warren J. Dart. Front row L to R: William J. Fitzgerald; and Francis M. Pfeffer. W/O Walter K. Schwing, the 463rd's Assistant Supply Officer, watches from in the doorway.

The 463rd AFCE (Automatic Flight Control Equipment) Section was also incorporated with the 389th AFCE Section. This section designed and built all of its test equipment and mock-ups (with the aid of Sub Depot Engineering). A few of these items include a Gyro Tester, Amplifier Tester, Inverter Tester, and various Control Panels. This group also set up a pilot training program to help improve the bombing accuracy of the group, receiving a letter of commendation from the 389th Commanding Officer. Hethel's AFCE shop was considered the best of its kind in the 2nd Bomb Division.

One of the AFCE techs, Edward Deck, is on our membership role. "I was originally in a Sub Depot that serviced fighter aircraft," said Deck, "and I was a fish out of water. They assigned me to the instrument shop because of my technical training. I did not like that and, after screwing up, as

a penalty was assigned to the Link Trainer Shop. Since all of its techs were always on the road visiting various Fighter Groups to service the equipment, I was given the tech manuals and told to educate myself on the Link Trainer in the shop. When I was deemed capable as a tech, I too was assigned to a team on the road. It was a great life. When the 463rd was looking for another tech, I was it, and I think of my additional experience on Link Trainers. I guess they were able to justify one in the AFCE shop as part of pilot training. I got it operating and helped install the autopilot equipment. I remember Jimmy Stewart coming in one day.



Jimmy Stewart

“The shop also set up a pilot training program and it was interesting to note the reaction of the new pilots when scheduled for a training flight to find a noncom assigned to instruct them. Once in while a hotshot refused the instructions and wound up having to come to the shop and apologize to one of us.

“An improvement to the AFCE equipment called a ‘Formation Stick’ was introduced, which enabled all of the pilots to maneuver using a joy stick device. Our shop improved on the improvement, making it safer. We also flew instruction flights to demonstrate the limits to avoid causing an accident. We were authorized to turn off the unit if they endangered the aircraft.”

The Formation Stick permitted the pilot or copilot to maneuver the airplane quickly and with a minimum of physical effort through use of the autopilot, enabling the fine control necessary for formation flying. There were several ways in which the pilots could use the Formation Stick to override the autopilot with fine or significant adjustments to elevator, aileron, and rudder control. The Formation Stick also had a microphone trigger switch, permitting the pilot to use his microphone without releasing the Formation Stick.

“Another procedure,” remembered Deck, “the base commanding officer established was someone from our shop would be the first person to talk to the lead ship pilot to discuss the operation or problems with the Automatic Pilot on the mission. Whichever one of us was responsible for that aircraft would get the word from the tower that the plane was landing.

“One time I was working late to correct a problem on a lead ship assigned to me. I could not correct the problem during the ground check, so I quit and was going to midnight chow. I called operations and said the plane was not available for a mission. Ten minutes later I received a phone call from the Group CO and he said, ‘You know there is a mission scheduled.’ I said, ‘No, Sir, that is classified.’ He told me to quit the bulls\_\_\_ and get that lead ship fixed by 5:00 a.m.! So I got some help and we changed the whole master control unit, having to also change 148 wires without error because there was no time for correction. The plane led the mission as planned.”

No “Mickey Mouse” outfit, the techs in the AFCE shop took such great pride in their work that they commissioned a special unit patch from the artists at Disney! Ed Deck explains: “The 389th AFCE Shop was where technicians from the 463rd and each of the four bomb squadrons worked together on the Automated Flight Control Equipment from the planes. The gang at the AFCE Shop was batting the breeze one day and came up with the idea of writing to the Disney Studio about developing a patch after we saw a news item about them. Besides the three of us from the 463rd

(John Nelson, John Durell, and Deck), the guys from the four bomb squadrons all participated. The design sent back by Disney was strictly for the AFCE Shop. We had an English gal make us each copies of the patch from Disney’s design.”



Disney artists designed this special patch for the Automatic Flight Control Equipment technicians in 1945. It depicts an automaton hurling lightning bolts from a bomber.

The AFCE insignia depicts a stylized robot flying a plane and sighting an enemy target while brandishing a powerful lightning bolt in one hand and dropping a bomb from the other.

John Nelson's son, Richard, contacted David Lesjack, author of *Toons at War: World War II Disneyana Collectibles*, for more details. Lesjack replied, "Your father's patch was designed by Disney artists in February 1945, and it is documented in the Disney Archives along with the original request from John Durell on a V-Mail, dated 20 October 1944." The following is their letter to Walt Disney: "Dear Sir, This letter is being written on behalf of my fellow members of the Group Automatic Flight Control Equipment department. It has long been our desire to have a distinctive department insignia. And since we are using your C-1 Autopilot training films, we feel that this background would make you our obvious choice for the designing of such a suitable insignia. We should also like to take this opportunity to commend you for the above-mentioned training films. In our comprehensive training program, your simplified, graphic explanation of the Auto-pilot theory and set-up procedure has been an invaluable aid. Your cartooning of World War I bombing procedure is the highlight of the series. We assume that you are acquainted with Army security regulations which prohibit the incorporation of abbreviations and/or numerals in such distinctive insignias. Hence any efforts on your part will be deeply appreciated by us. Sincerely yours, S/Sgt John N. Durell."

The Disney Studio mail room stamped Durell's letter "Received October 31, 1944," and the finished insignia was sent to the AFCE boys on February 28, 1945. Lesjack added, "Disney artists designed combat insignia for all branches of the U.S. military and that of her Allies. During a five-year period, Studio artists designed an estimated 1,100 insignia. Despite costing an average \$25 each to produce, all of the artwork was donated. With a total cost of approximately \$30,000, Disney's insignia contribution was substantial. "Never mind what the job is costing us," was Disney's attitude. "That isn't important." Patriotic words from a man whose film studio was deep in debt during most of the war years.