

Photographing Operation Crossroads The Perry M. Thomas Collection

Introduction

In 1946, Major Perry M. Thomas was Chief of the Photographic Engineering Section that photographed the nuclear bomb experiments at Bikini Atoll in the Marshall Islands. The project was called Operation Crossroads and it tested the effects of dropping nuclear bombs on ships. This exhibit features selections from his scrapbook. The entire collection can be seen at the Michigan State University Archives and Historical Collections.



Biographical Information

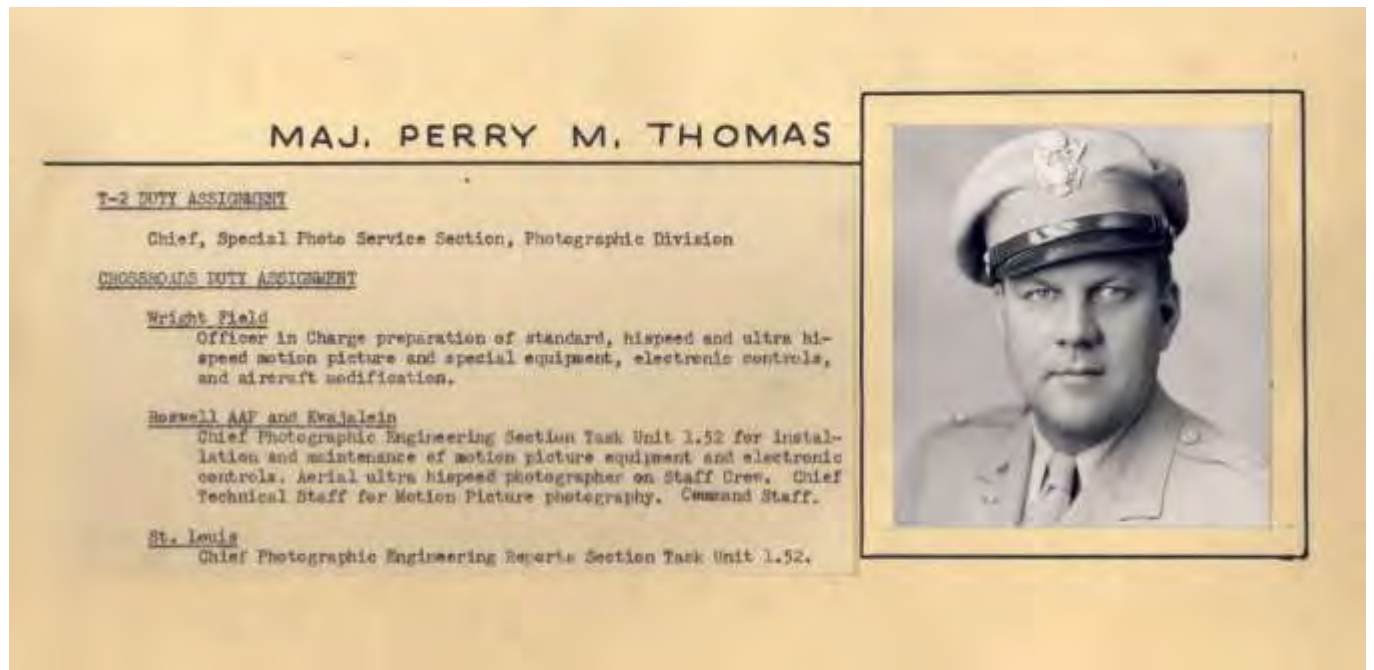
Perry Marsden Thomas was born on December 27, 1905. He attended Kansas State University studying engineering for two years and while there participated in ROTC. He then transferred to the University of Wisconsin as a pre-medicine student. He was forced to stop attending college due to lack of money. After the attack on Pearl Harbor in 1942, Thomas was activated into the Army and became a first lieutenant. He was later assigned to the U.S. Army Air Forces due to his knowledge of high speed motion photography and aviation. Thomas was part of the team that photographed the nuclear tests at the White Sands Proving Ground near Roswell, New Mexico. He then became part of Operation Crossroads. (Unfortunately some aspects of Thomas' life are not known thus there are gaps in his biography.)

Major Thomas and Operation Crossroads

OPERATION CROSSROADS was a U.S. Army and Navy project to test the effects of atomic blasts on the fleet. The tests took place on Bikini Atoll in the Marshall Island in the Pacific. Men were stationed at Kwajalein base on the Kwajalein Atoll and Enewetak Atoll, which were two atolls near Bikini. The first test, "A," was conducted on July 1, 1946 to measure the effects of an atomic bomb detonated above ships moored in the Bikini lagoon. During the second test, "B," on July 25, 1946, an atomic bomb was detonated underwater.

Major Perry M. Thomas served as the Chief of the Photographic Engineering Section, Task Unit 1.52 assigned to photograph the tests from land and air. He supervised the installation and maintenance of motion picture equipment and electronic controls for unmanned cameras. During the actual tests, he also served as a photographer.

Major Thomas created a scrapbook of his experiences during the tests. It contains documents about the mission, equipment, and tests, as well as photographs. The images include fellow service members, airplanes, photographic equipment, blasts, life on Kwajalein Base, and native Bikini Atoll residents. There are also a small number of images of blasts in New Mexico as well as copies of articles about the Hiroshima and Nagasaki bombings from the New Yorker Magazine.



In addition to creating the scrapbook, Major Thomas also wrote a history of Operation Crossroad. Click on the link to read the history by Major Thomas.

http://archives.msu.edu/documents/HistoryOperationCrossroads_web.pdf

Camera Units and Personnel

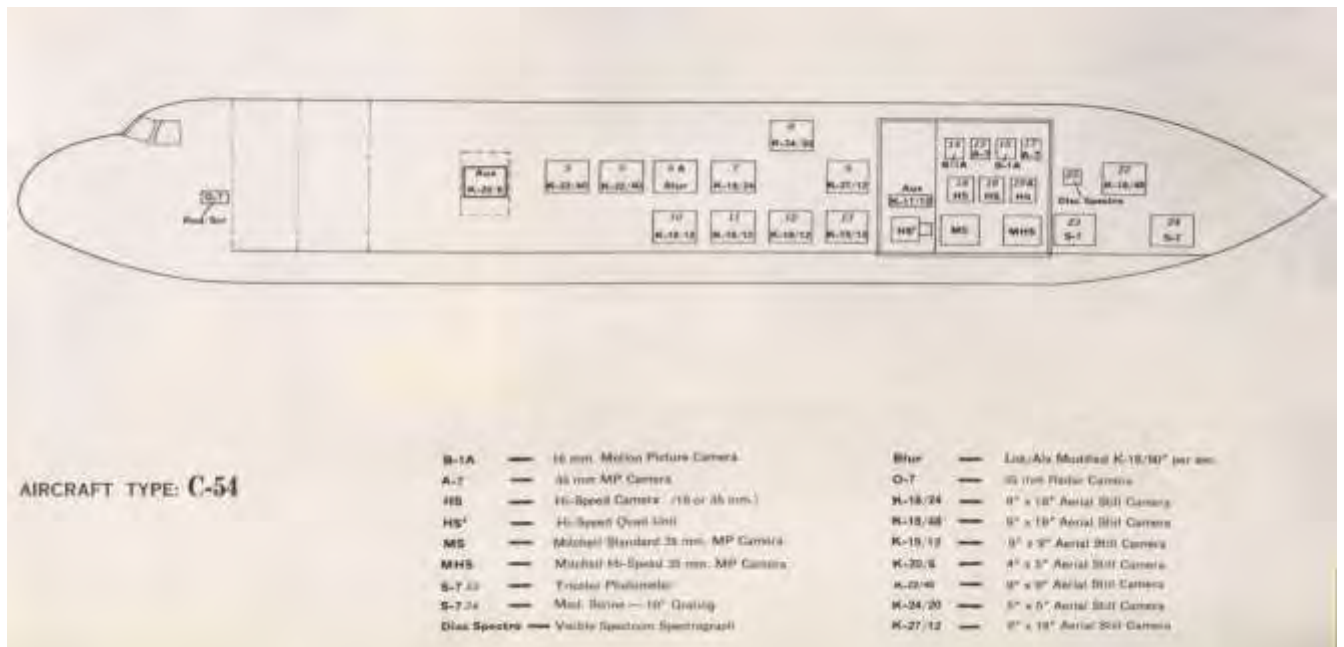
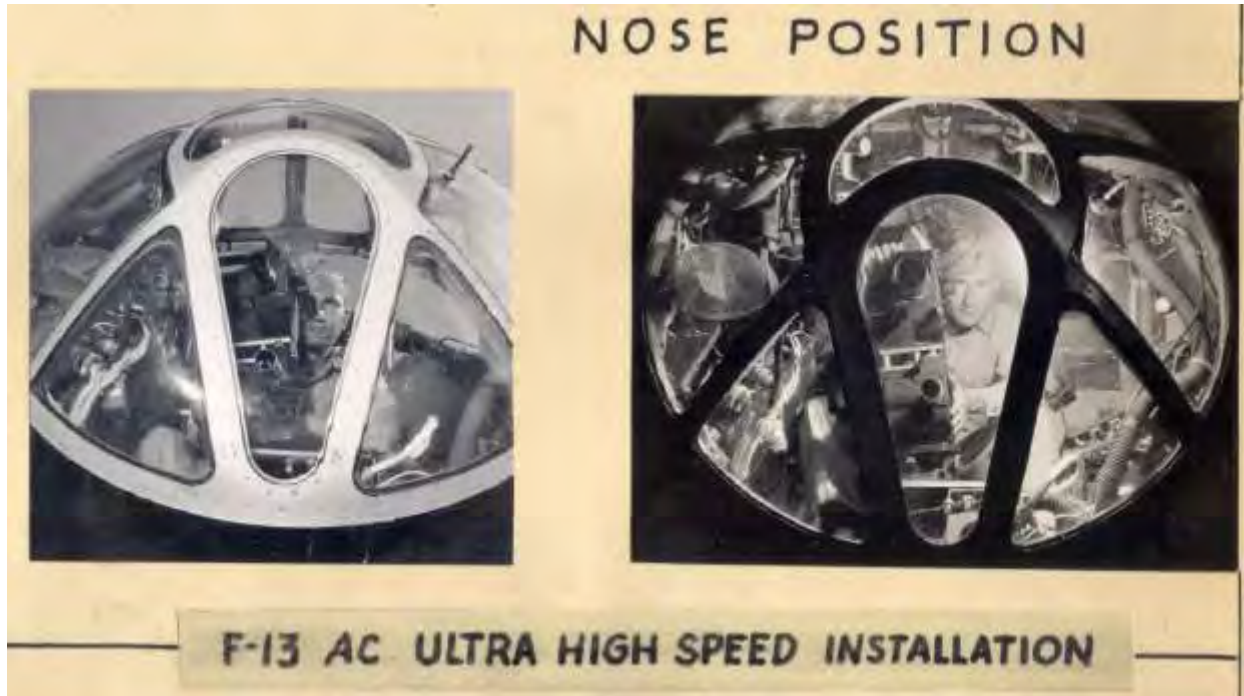
There were many airmen working on Operation Crossroads. Jobs included installing cameras into air craft, electrical work with timers to activate the cameras, maintaining the camera in the tropical conditions, developing the film, maintaining the drones, and photographing the activities of the project as a whole. One hundred fifty seven movie cameras and one hundred and six still cameras were used to photograph the tests.





Jerome turret cameras near a hanger

Cameras were placed in various positions in the aircraft, including in the nose, turrets, wings, and sides of the aircraft. Cameras were operated by servicemen as well as rigged to be run automatically.



A diagram showing placement of the cameras.

F-13 AC ULTRA HIGH SPEED INSTALLATION





An aerial camera



Men at their positions to operate cameras in an airplane.

Cameras needed to be highly maintained to protect against corrosion in the tropical conditions



JEROME MAINTENANCE



T/Sgt Fay Steele

Mr. Geo. Lorraine

Mr. E. Powers

Workstations for the Jerome cameras.

Unmanned drone aircraft were also used to photograph the tests. The B-17 drone units were stationed at Eniwetok Atoll. Operators of the drones were called “beepers.” They controlled take offs and landings remotely from the ground. Once in the air, drones were controlled by operators in a plane called the “mother ship.”



Drone on the airstrip.



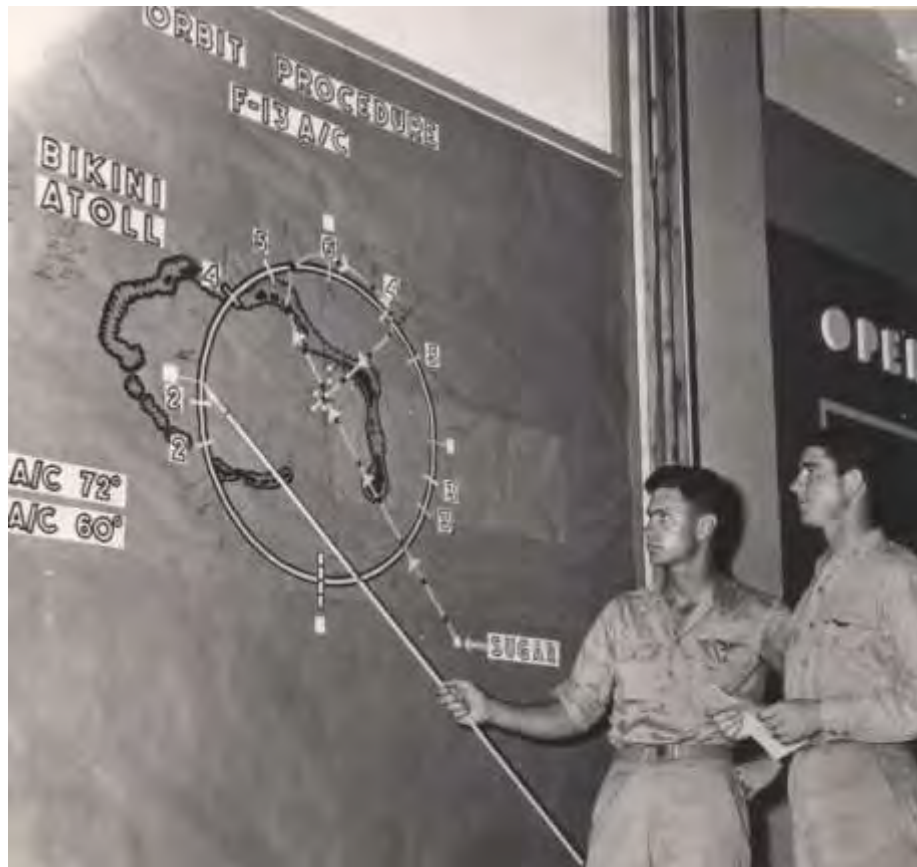
Drone testing



Drone ground "beepers" control the take offs and landings.

A – Day

The first atomic test in Operation Crossroads took place on July 1, 1946. A bomb was dropped over ships in Bikini Lagoon and the results were extensively photographed from air and on Bikini Atoll to document the results.



Two servicemen examine an orbit procedure chart, showing the flight paths for the plane that dropped the bomb and the photography planes.



The explosion as seen from a beach on Bikini Atoll.



A view of Bikini Lagoon with the target ships.



The blast photographed from the air.

Life on Kwajalein air base

The air photograph unit was stationed on Kwajalein Atoll which was southeast of Bikini Atoll.



An aerial view of Kwajalein air base on Kwajalein Atoll.



Servicemen "off duty".



The buildings that housed the air photo unit.

Conclusion:

The second test, "B" took place on July 25, 1946. It consisted of detonation of an atomic bomb underwater. A third test was cancelled. Although nuclear testing and nuclear weapons raises many concerns, Operation Crossroads was considered a success for Photographic Unit 1.52. Extensive amounts of still images and film footage were captured during and after the tests. Perry M. Thomas later made himself available for speaking engagements about Operation Crossroads.



Cover of Perry M. Thomas' scrapbook