



Courtesy of Aden Meinel

## Reminiscences: Aden Goes to War

Aden B. Meinel

An OSA past president reminisces about his wartime experiences.

*Aden Meinel has led a distinguished career in optics. In 1952, he won the Adolph Lomb medal. He went on to become the founding director of the Optical Sciences Center at the University of Arizona in 1970. Two years later, he took office as the president of OSA. In 1980, he received an Ives Medal.*

*Meinel also earned distinction in the field of astrophysics. He was the associate director of the Yerkes Observatory in 1953; he served on the site survey team for the National Astronomical Observatory from 1955 to 1957; and he was put in charge of construction of the Kitt Peak National Observatory and became its first director.*

*Back in 1940, Meinel was 18 years old and just starting college at Caltech. He had a part-time job as an apprentice in the optical fabrication laboratory of Roger Hayward. There, he learned how to grind and polish lenses, and how to make aspheric Schmidt corrector plates for telescopes. Aden had a girlfriend, Marjorie Petit, whose father was an astronomer working with the 150-foot solar telescope at Mount Wilson.*

*Not long ago, an old friend mentioned those early days. Aden responded by writing his reminiscences, which are presented here almost verbatim. He is now retired and living in southern Nevada. He remains active and continues to write about astronomy.*

— John N. Howard

What a wonderful surprise to get an echo of years long past. Back in those days, I was working with Roger Hayward to refine his new way of making Schmidt plates. It started the summer I graduated from 12<sup>th</sup> grade at what was then Pasadena Junior College. Roger was great fun, always singing a ditty from Gilbert & Sullivan. I learned a lot that I was to use later to make the infrared grating spectrograph that I would use for my dissertation at UCB (the University of California, Berkeley) after the war ended.

I was able to skip freshman year at Caltech and was accepted as a sophomore. That September, I tried to continue working with Roger in the afternoons and do my Caltech homework in the evenings and on weekends, while tending a polishing machine. But that

arrangement did not allow me to do my best at Caltech, so I soon quit.

But learning to make Schmidt plates actually saved me from dying when the U.S.S. *Indianapolis* was sunk after it had delivered the first two atomic bombs to Tinian Atoll. Here's how that came about.

During my junior year at Caltech, all of us students had to join the Navy V-12 program or risk being drafted. Upon graduation, we would become officers. I was not exactly eager to become a Navy officer, so I joined Willy Fowler's team in Kellogg Lab and became an expert in rocketry. Marjorie joined the rocket team after she got her M.S. at Claremont College. She was already my girlfriend. But after two years there, and the week after we returned from our honeymoon (spent at Keptyn Cottage on Mount Wilson), I got my draft notice. Willy gave me a let-

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Wikipedia

ter from the Admiral at Caltech supporting my assignment to the Navy so that I wouldn't be assigned to the Army.

Soon thereafter—and on my birthday, November 25, 1944—I found myself at boot camp in San Diego. My group, 44-576, was scheduled to be assigned to the U.S.S. *Indianapolis*, a beautiful new ship that we could see anchored across the bay. We were elated. Now we'd have bunks and showers; we would not live like the GIs, in rain, snow and mud.

But the ship I wished for wasn't to be my fate—or my life likely would have been very short. After delivering the bombs to Tinian, the *Indianapolis* was torpedoed by a Japanese submarine on its way to Manila, unescorted. Only a few survived; most died from exposure, dehydration and shark attacks as they waited for assistance while floating at sea for four days.

Before the *Indianapolis* embarked, and after only a month at boot camp, I received orders to report to the Navy Office back at Caltech. I couldn't believe it; I was now back at my same old desk. Marjorie said that all the secretaries loved that "rocket engineer wearing a white Navy cap" and the garb of an Ordinary Seaman, First Class. Now Marjorie and I could ride the shuttle bus together out to China Lake where the Navy had established a test range and research offices.

After a month back at Caltech, I received orders to report to China Lake to be commissioned as an officer, Ensign

SO4 (rocket ordnance). The admiral heading the Caltech Rocket Project and Willy Fowler had recommended me for this honor.

In February, three months after I was drafted, I was at Ammunition Handling School in Hingham, Mass., for officers who would be assigned to Rocket LSTs for Pacific action. But after having been there only two weeks, the school Commandant called me into his office at 5 p.m. and said that I must report immediately to Navy HQ in Washington, D.C. I said, "Yes, sir," and told him I'd be ready first thing in the morning—to which he replied, "They mean NOW!"

Barely an hour later, I was on my way to the airport. At Navy HQ, I was informed that in two days I'd be flown to Paris to become the rocket and optics expert on the Naval Technical Mission in Europe. The officer who was to do that had been killed when his plane went down just short of Paris. I was assigned to Patton's 3<sup>rd</sup> Army for the crossing of the Rhine. My principal optics "targets" (of scientific interest) were Wetzlar (where the firm Leica was located) and Jena (the location of Zeiss and Schott). And my principal rocket target was the underground V-2 factory at Nordhausen. (That's where Tom Gehrels' captured brother was executed just weeks before I arrived.)

When I left Jena, I was in charge of leading a convoy of six trucks bearing key items of advanced optical technology—including two captured Soviet

periscopes—all the way to Dover. My secondary task was to help key people at Zeiss and Schott to escape to the West. In two weeks, that region was to be turned over to the Soviets. I heard about the sinking of the *Indianapolis* from the Navy radio operator at the Castle at Wiesbaden.

That was my German home base. The castle was taken by the Navy team before Patton's troops got to it. I was sitting at breakfast in that fabulous baroque dining room when the radio man said that the atomic bomb had been dropped on Hiroshima. We all cheered because the news meant we wouldn't be sent to invade Japan. Only one team member—Harvard astronomer Lt. Cmdr. Dimitroff—was actually sent to Japan.

Twenty years later, Marjorie and I were in that same dining room in the Castle with some engineers and physicists whom I had helped to escape from Jena. We reminisced about those hectic days. And believe it or not, Marjorie and I later discovered that a woman in our church here in Henderson, Nev.—who was at that time only 13 years old—had trudged along a road near Nordhausen with scores of other refugees heading West, at the same time I was in my Jeep 10 km from where she walked. Talk about a small world. ▲

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