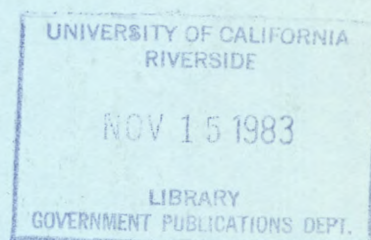




DNA 6040F

OPERATION DOMINIC I 1962



**United States Atmospheric Nuclear Weapons Tests
Nuclear Test Personnel Review**

**Prepared by the Defense Nuclear Agency as Executive Agency
for the Department of Defense**

Positions of aircraft in the air array to gather scientific data or for control purposes are shown in Figure 103. In addition to those shown in Figure 103, two WB-50 weather aircraft, one SC-54 SAR aircraft, and one U-2 participated. Two RC-121s and one KC-135 again participated below the equator. Ship positions are shown in Figure 104.

BLUEGILL Triple Prime (25 October 1962, 2359)

The fourth attempt to launch the BLUEGILL device using a Thor missile was successful. Observers at Johnston Island saw a brilliant white flash, and a noticeable thermal pulse could be felt on bare skin. A slightly distorted bright moon-like sphere was observed -- yellow at first and gradually showing hues of green, pink, and violet -- and blue-purple streamers were formed. At 10 minutes the glow was bright enough that a watch could be read in the dark and it persisted for at least 30 minutes. At Samoa, observers saw a pink band at the horizon, which faded after about 10 minutes to gray.

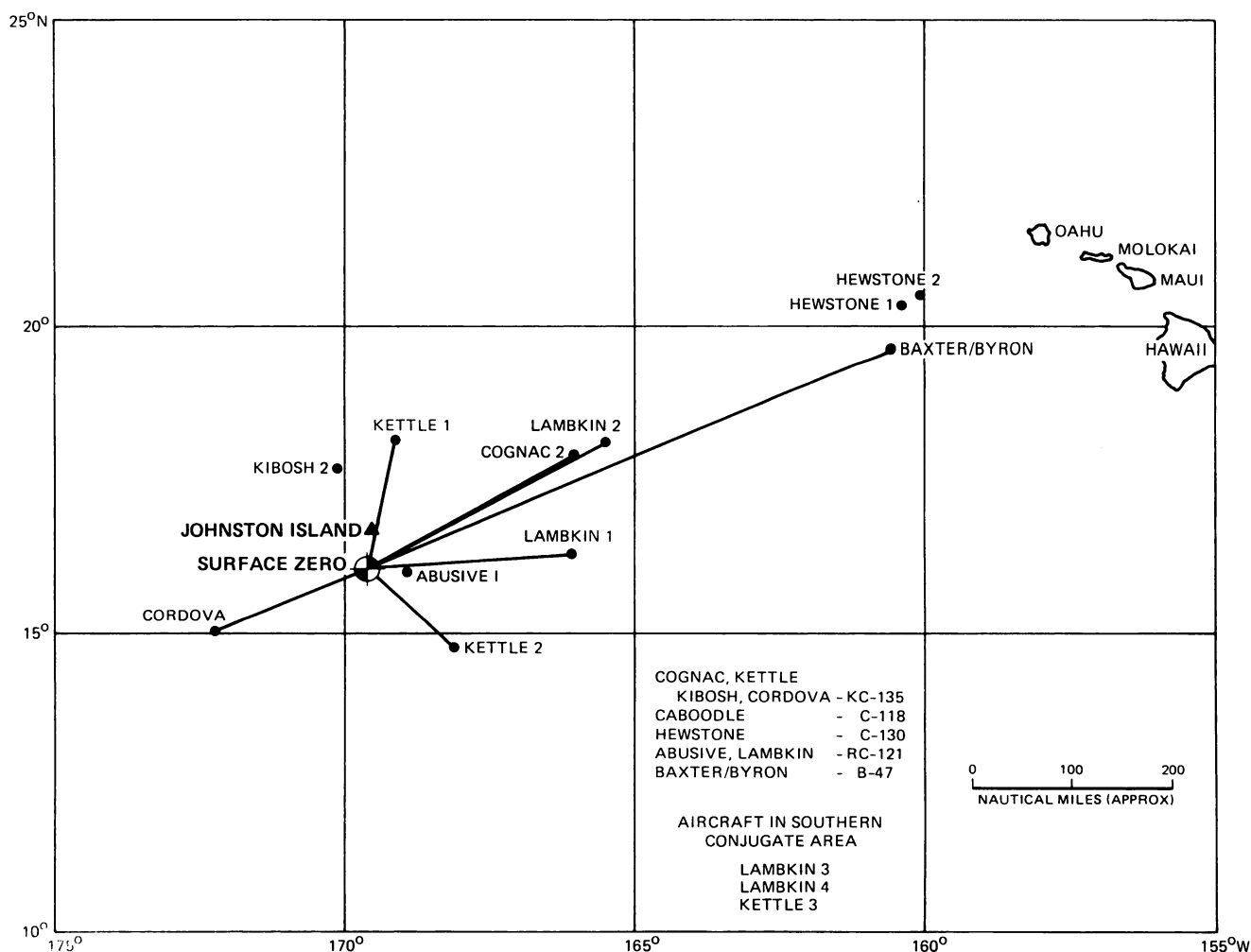


Figure 103. Aircraft array for DOMINIC, CHECKMATE, (Source: Reference C.2053, Appendix E).

Scientific experiments were quite successful, including photography. The weather was exceptionally clear. Three instrumentation pods were carried aloft by the Thor missile. They functioned properly and were subsequently recovered by the Navy and returned to Johnston Island. All three pods were radioactive; the highest reading was 14 R/hr, measured 8 hours after detonation (Reference C.1.L, p. C-4-1).

Twenty-eight small instrumentation rockets were launched from Johnston Island, including two for sampling the nuclear cloud debris. The nosecones from these two sampling rockets were not recovered (Reference C.2053, p. 247).

All nonessential personnel (803) were evacuated from Johnston Island to Princeton before the shot and returned the next day.

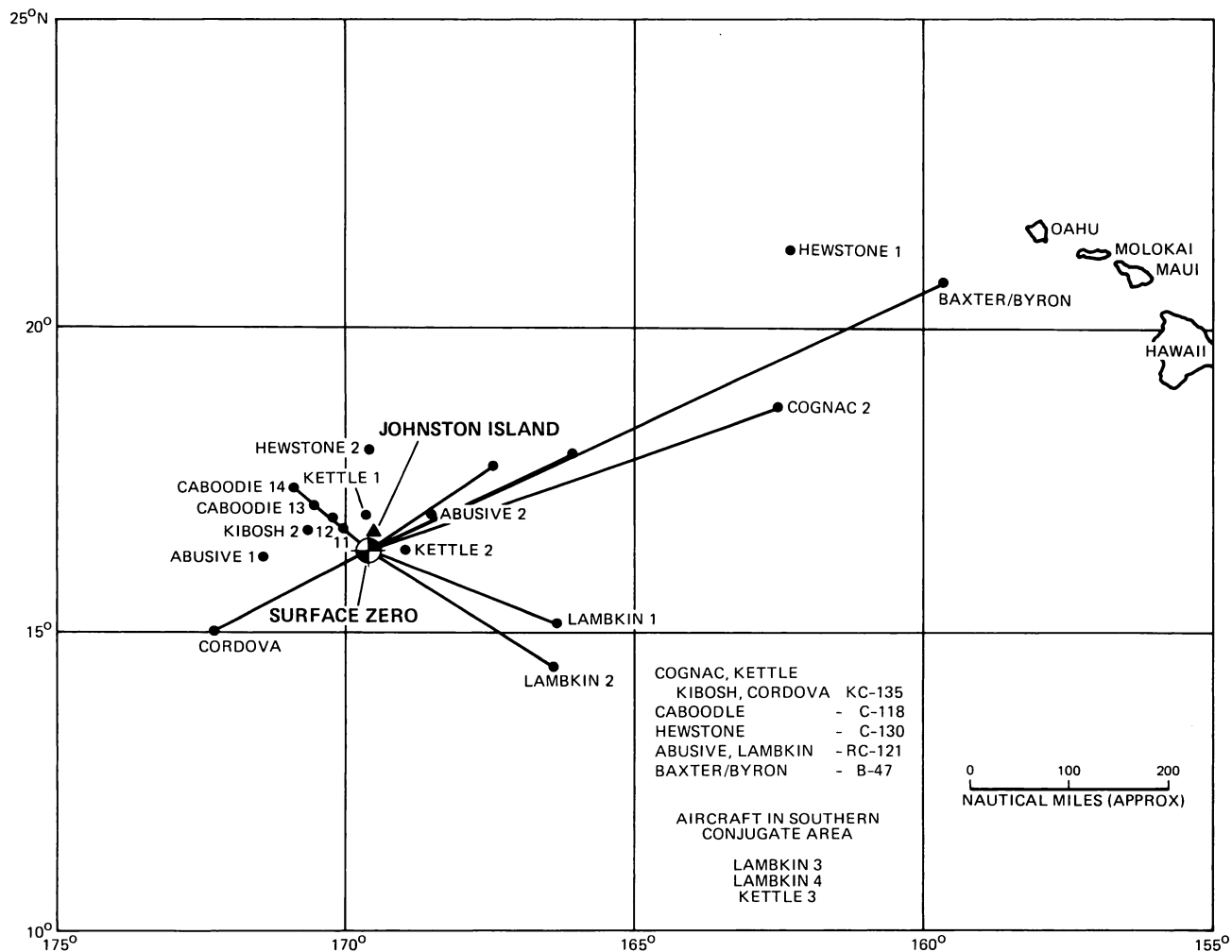
Two men on Johnston Island sustained burns on the retinas of their eyes. One Air Force enlisted man was wearing protective goggles, but the lenses were in the up, or nonprotective, position. He had lost track of the countdown and was walking toward his preassigned position. As he reached up to adjust the lenses, the detonation occurred. Following the shot he observed blurring and a dark spot in front of each eye. He was transferred to Tripler General Hospital for a 29-day stay and was later cared for at the Air Force School of Aerospace Medicine (AFSAM) at Brooks AFB, Texas. His central vision was impaired and initially his vision was 20/400 O.U. His vision improved during his stay at Tripler and was 20/30 in both eyes on leaving. At AFSAM his vision continued to improve and was 20/25 O.U. for distance and 20/20 O.U. for near in 1963 (Reference D.13, p. 136).

A Navy enlisted man had his goggles in the ready position on his forehead. He stated that he was looking straight ahead when the detonation occurred. He then looked up and down rapidly. He had an immediate after-image of a large, round, white ball, which lasted for an hour but returned when he awoke early the next morning. At Tripler his central visual acuity was less than 20/400. The best visual acuity was 20/60 to 20/70 looking off-center. His vision did not improve either at Tripler or at AFSAM. However, the patient noticed an increased ability to compensate for the loss of central visual acuity (Reference D.13, p. 136).

There is a remote possibility that the burns of both men could have resulted from a reflection rather than a direct image. Such reflections could come from a wristwatch face or a variety of shiny metal or glass surfaces (Reference D.16, p. 74).

The Air Force arrayed 22 aircraft for the detonation as shown in Figure 105. Other aircraft participating included Air Force WB-50s and U-2s (weather), Navy P2Vs (surveillance and pod recovery), and Marine helicopters (pod recovery).

Nine Navy ships were positioned to gather scientific data. Their locations are shown in Figure 106.



**Figure 105. Aircraft array for DOMINIC, BLUEGILL Triple Prime
 (source: Reference C.2053, Appendix E).**

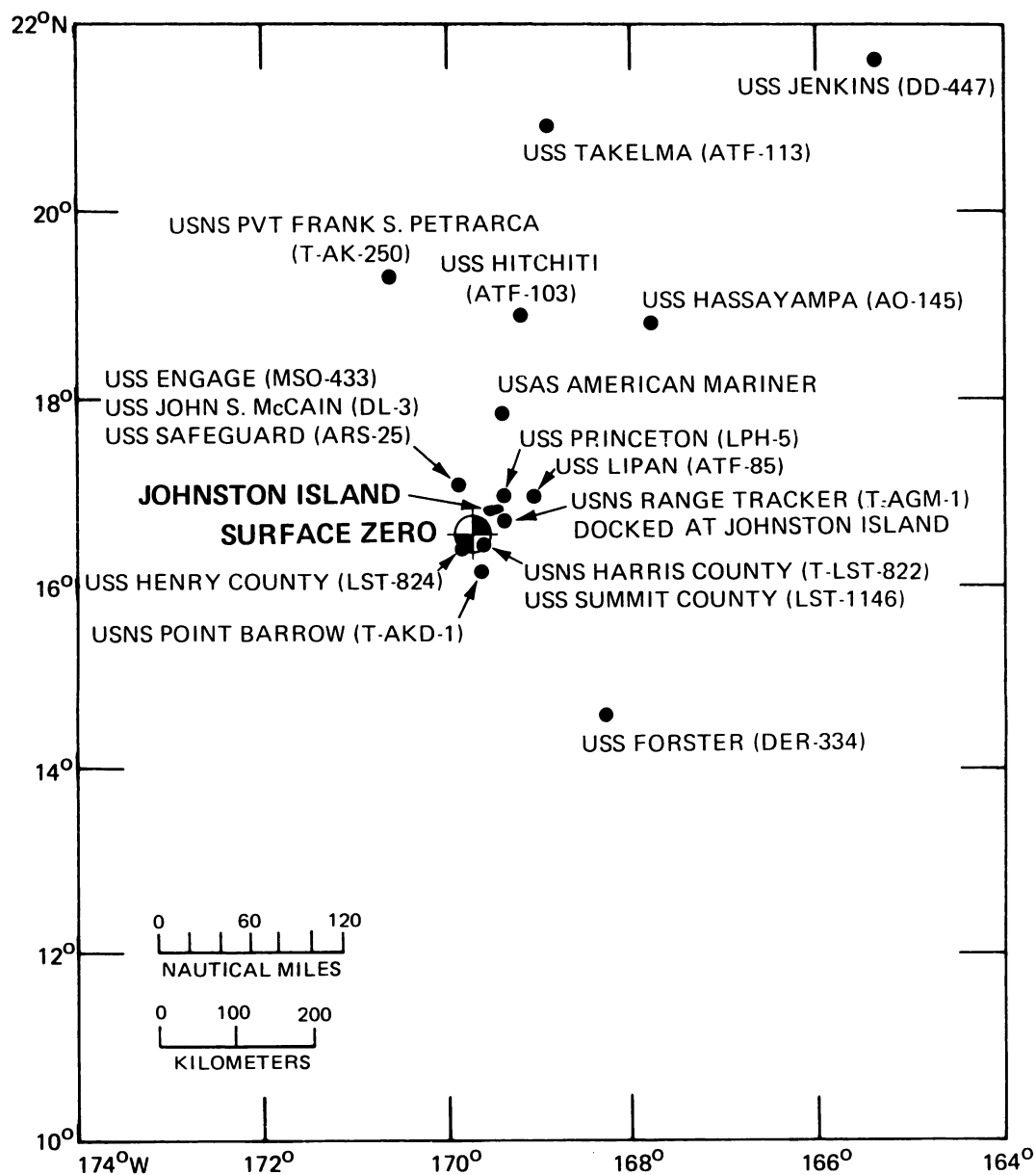


Figure 106. Ship positions, DOMINIC, BLUEGILL Triple Prime.