

In consequence the bomber threat remains at this date a very much larger proportion of the total threat than was expected. On the basis of present information I feel that active air defence is a proper demand on part of our resources.

Our contribution to the active air defence consists of a substantial participation in the radar warning lines, five squadrons of CF-101B ("Voodoo") interceptors, and two squadrons of "Bomarc" surface-to-air missiles.

At the outset Canadian authorities had noted that the initial U.S. plans for the installation of these missiles confined them completely within the bounds of the continental United States. Canadian comments on these U.S. plans expressed concern that this proposed deployment would result in conduct of the air battle over the most densely-populated areas of Canada, particularly in the area between Montreal and Toronto. The proposition was advanced that this undesirable situation could be easily rectified without any compromise to U.S. air defence by moving a small portion of the planned "Bomarc" deployment further northward. In particular, it was proposed that the two "Bomarc" squadrons programmed for a site in northern Michigan and another in northern New York State, just south of Montreal, should be deployed further north.

Meanwhile, the North American Air Defence Command had come into being and, operating through these channels, little difficulty was experienced in persuading the U.S. to locate the northern Michigan squadron to North Bay, Ontario, and the northern New York State squadron to La Macaza, P.Q. From the NORAD point of view, this deployment was desirable not only because it moved the defence line outward toward the periphery of the ground-radar system, but also the two "Bomarc" squadrons, previously programmed for location at SAC bases in the U.S.A., were moved to more isolated locations.

Many of the early tests of the "Bomarc" were not successful, and it was also subject to electronic counter measures. Consequently, a number of observers, myself included, were extremely critical. More recently the defects have been solved and a device has been developed to overcome the effects of electronic counter measures. It is now an effective anti-bomber weapon - as good as anything we have available. Like Mr. McNamara, the U.S. Defense Secretary, I believe that after approximately \$3 billion has been invested in the "Bomarc" system, practically all by the United States, the effectiveness of the system is sufficient to justify the maintenance costs involved.

In order to be effective, however, the "Bomarc" must be armed with an atomic warhead. No conventional warhead exists and none was ever developed. The advantage of the nuclear warhead is twofold. First, it has a good "kill" capacity, in that a direct hit is not required. Second, the bomb or bombs carried by the attacking bomber can be rendered harmless by "cooking". If a high explosive warhead was available it might bring down the bomber but the resulting explosion from the bombs being carried would be devastating in comparison.