Controlled approach, the subject discussed at the I.A.T.A. technical conference outlined below, is demonstrated here by a B.E.A. Viking.

FINDING THE RIGHT APPROACH

I.A.T.A. Delegates Discuss a Critical Phase of Flight Operation

One of the most successful of the many international meetings convened by I.A.T.A. was the technical conference held at Copenhagen from May 5th to 17th, when the main item on the agenda was a ten-day discussion attended by over 100 representatives of airlines and other interested organizations of the problems involving final approach and landing.

The discussion was based on the assumption that, while very large amounts of time, energy and money are being spent on the development of specific aids and procedures for this critical stage of flight, not enough attention has been given to the inter-relationship of these installations, instruments and processes and the pilots who must use them.

The conference gave airline aircrew personnel a unique opportunity of putting forward to engineers and scientists their views and requirements; in the words of one participating pilot, the problem was: “To get us the 'black boxes' that we need to help us fly rather than to fly according to whatever ‘black boxes' we can get.” The approach discussion was informal and no specific conclusions or recommendations were made; however, the I.A.T.A. Technical Committee has approved the tentative assertion that present operating minima can be lowered “quite substantially” with equipment now known or available in the near future.

It is estimated that the Copenhagen delegates spent approximately 17,000 man-hours discussing this phase of flight—which itself lasts only about two minutes. At present it is obviously impossible even to summarize records of the discussion, which will run to several thousand pages and which will have to be edited and studied by I.A.T.A. over a period of months before all implications are realized.

As mentioned, the final process in approach and landing normally occupies about 120 seconds. In bad weather some 105 seconds may be spent in guiding the aircraft on instruments and ground advice to the point where the pilot can decide, on visual evidence, whether he should land or go round again. Under existing rules this point of decision normally cannot be lower than 200ft above the ground. In practice, most airlines operating large transport aircraft have pushed the minimum up to at least 300ft. In the first part of the approach the pilot relies on instruments to provide him with information as to his approximate height, speed and attitude, the direction of the runway, his distance from it, his approximate heading and displacement from the glide path and his rate of descent. Further information is provided by R/T. from the ground. When the runway comes into view his attention is concentrated mainly on the runway itself and its markings and lighting. At every stage of the approach he must translate facts into physical action.

As a complement of “exposure time,” Joe was felt to have still another requirement for a certain continuously visible segment of the approach and runway areas before him, sufficient to permit him to carry on his job with what the conference termed “tranquillity of spirit.” This “reaction time,” though related to exposure time and to the type of aircraft and flight conditions, was reckoned to be about three to five seconds—that is, Joe must see ahead of him a distance...