

6,000 Miles in an El Al Britannia

*Impressions of a Fifteen-hour
400 m.p.h. Record Flight from
New York to Tel-Aviv*

By J. M. RAMSDEN

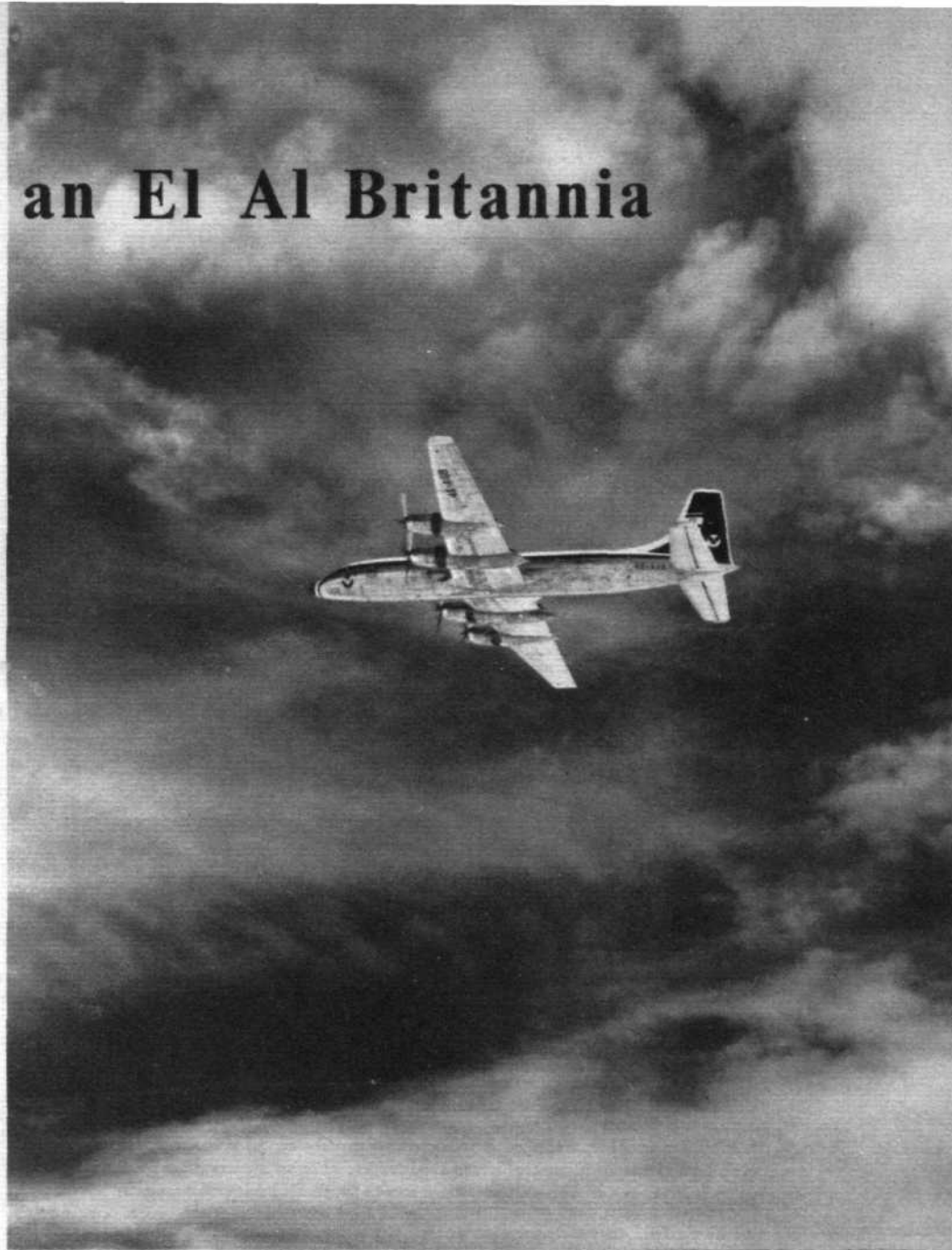
THE headlines in the *Jerusalem Post* of December 20 said that our Britannia had smashed 16 world records. I am not quite sure what they all were, but of two things I am certain. First, that by flying the 6,100 miles from New York to Tel-Aviv non-stop in a time of 14 hr 57 min, we had flown farther, and faster, than any other commercial airliner. Second, we had convincingly demonstrated that the Britannia is not just a long-range turboprop according to the brochure. I might add that our flight was more than an "anyone-could-do-it" operation with full tanks and a tailwind: as I hope to show, El Al know how to get the best out of the Britannia.

We had some difficulty at New York with the refuelling. No matter how hard the El Al engineers tried, they couldn't get full tanks. New York's Avtur had an unusually high specific gravity; had the bowser been capable of delivering at a high enough pressure we might have achieved full tankage. (Compared with London's 50 lb/sq in pressure, at New York we got only about 35.) As it was, having first drained the tanks and then made careful estimates of fuel mass by measuring its s.g. and temperature, we took off 275 Imp gal short of the Britannia's 8,547 Imp gal maximum usable. For this reason it was decided to remove all but one row of the six-abreast tourist seats, saving about 2,000 lb (and converting the aeroplane—as someone remarked during the trip—into a long-range ballroom).

We passengers sat in the 18 first-class seats at the back end. I asked whether we made any difference to the trim, remembering how on a B.O.A.C. Britannia 102 trip last year our hefty captain's retirement aft for dinner had cost us 4 kt. But it was reckoned to make no difference on this aeroplane, notwithstanding the critical nature of our flight, and we were certainly very comfortable in our berths and slumberette seats. There were 25 people on board, made up of two flight crews (totalling ten); three technicians from Bristol and D.H. Propellers; three journalists besides myself (representing the *Manchester Guardian*, *Time* and the Israeli Press); Mr. J. E. D. Williams, an Englishman who is in charge of El Al's planning and development; Mr. Yoel Palgi, El Al's deputy managing director; and seven others. Our commander was El Al's chief pilot, Capt. Zwi Tohar, a wartime R.A.F. Bomber Command pilot (Wellingtons) who has been flying the Atlantic for El Al since the airline was formed in 1948.

The idea was to get up high quickly and to cruise as high as possible without running into the Britannia's V_{10} of 250 kt. Ideally, for maximum range, we should have cruised at the speed for minimum drag, i.e. at maximum L/D, drifting up in a cruise-climb as we burnt off fuel weight. But this idealized method of getting the most out of a turbine aeroplane is no longer permitted for traffic control reasons, so we made the most of the stepped-climb procedure. We took off at 0630 G.M.T. (Zee, as the Americans call it), and climbed fast, levelling out at our first selected cruising level of 25,000ft, an odd-number quadrantal height since we were flying eastwards. Our take-off weight was 161,000 lb, considerably less than the new approved gross of 180,000 lb for the Britannia 310-series.

Soon after take-off the stewardess switched off the cabin lights, since it was long past our American sleeping time. I arranged to talk to "Jed" Williams and to Mr. Palgi in the morning. It was the phrase "in the morning" which more than anything measured the length of the journey ahead. In the next 15 hours we were to have a night's sleep, breakfast, lunch, and dinner—and we would still have three hours to go before arriving overhead at Lod Airport, Tel-Aviv. People had been in commercial airliners for 15 hr and more, of course, but they had not covered the



JUST before Christmas the Israeli airline El Al played an overture to the inauguration of their transatlantic Britannia services by flying non-stop from the U.S.A. to Israel. The author of this article, a member of the staff of "Flight," was on board. He describes the journey, and gives his impressions of how the first foreign operator of Britannias is settling down with its new aircraft.

distance—6,100 st. miles—we intended to travel in that time.

The Bristol representative winced slightly at the way the *Manchester Guardian* heaved himself into his berth, explaining with mocking reproof on behalf of his stress office that steps were provided for this operation. Those of us in sleeperettes were probably just as comfortable as the lucky four in berths, with our 53in of fully-reclined pitch and our woollen El Al rugs. Those in the normal 42in pitch first-class seats slept soundly, though I think the I.A.T.A. surcharge for a sleeperette will be found to be worth \$50. Cost of a berth is \$75, and providing one has the privacy of curtains I think this is worth the money too. The soporific hum of the Proteus and the confining effect of the lowered berths made our cabin very cosy.

Before finally settling off I strolled up front. The duty crew, in their grey gold-braided uniforms, were intent and pre-occupied. The jetstream forecast by New York met. could not be found, though we had changed course twice. "Jed" Williams, who had had a hard day at the airport, was comparing his radio- and pressure-altimeters and keeping watch on the outside temperature gauge, trying to get wind of the elusive jetstream by the rapid tell-tale changes in pressure and temperature. He reckoned that the forecast stream we were seeking had changed direction from northwesterly to north, and a cross-check with a weather-ship tended to confirm this. Unless we found a tailwind soon, it was touch and go whether we would make Tel-Aviv non-stop.

When we were awakened for breakfast at 11.30 G.M.T. by the stewardess (looking remarkably neat and uncreased after her night in a tourist chair) it was daylight, the sun having risen fast to meet our flight into the dawn. We were now on the third step of our cruise, at 29,000ft. Up front, the crew were more optimistic