

DC-7Cs of S.A.S.—one is seen here for the first time in house livery—have been used on the airline's transpolar routes since last October. In the first two years of transpolar operation S.A.S. achieved load factors of 73 per cent.

## CIVIL AVIATION



### ... IN SOUTH AFRICA

**B**OEING 707 and Douglas DC-8 services to South Africa will present the Union with a sizeable runway problem. Jan Smuts, Johannesburg (5,559ft), is one of the highest major airports in the world. But the challenge has been accepted, and advanced planning for the necessary operational, technical and administrative changes has already begun. Recently the South African Secretary for Transport, Mr. J. P. Gibson, met senior representatives of all the international airlines operating into South Africa; and he invited them to acquaint his department with the preparation that will be required.

The airline officials said that the coastal runways needed for the big jets would have to be at least 7,000ft long, and at Johannesburg a runway up to 14,000ft long would have to be provided. The present length of the main runway is 10,500ft. The Boeing 707, at a take-off weight of over 250,000 lb would, they estimate, need 13,500ft at maximum temperature; and the runway thickness would have to be increased. Also considered to be of major importance by the airlines are improvements in the co-ordination of air traffic control; faster and more reliable communication systems; and a new appreciation of despatch procedures. More attention would also have to be devoted by meteorologists to hourly weather forecasts.

A shortage of pilots is another South African problem: fewer than six qualified commercial pilots a year are being trained to replace those—mostly wartime-trained ex-Service pilots—who are leaving flying jobs. The Aircraft Owners and Pilots' Association is advocating governmental training schemes similar to those which existed before the war. Another suggestion to alleviate this situation has been put forward by a charter company, which proposes that the government should allow private firms to run subsidized feeder airlines in the Union to provide some prospect of employment for embryo pilots.

### DISCUSSING AIR SAFETY

**M**UCH of the patient behind-the-scenes work of International Civil Aviation Organization conferences is revealed only when the reports of individual organizations are published. Then the conflict of opinions and the painstaking process of proposal and amendment that leads to equitable solutions—or resolutions for further study—is made clear.

From the International Federation of Air Line Pilots' Associations came well documented reports of their work at the I.C.A.O. Third Air Navigation Conference in Montreal in September and October. Considerable variance of opinion is frequently expressed in the sub-committee and committee stage before agreement is finally reached; and I.F.A.L.P.A., we learn, is careful to prepare for its delegates a comprehensive brief on the many subjects in which the Federation has a close interest.

Typical of the discussions leading to an amendment of the relevant annex was the part of the conference dealing with the privileges of the aircraft maintenance engineer invested in approved organizations—a concept with which I.F.A.L.P.A. strongly disagree (we summarized their reasons on p. 131 of *Flight* for July 20). Another point of view is that, in any case, engineers' licences would have to be revised completely when the big jets neared completion, and the Federation therefore concentrated upon obtaining acceptance of their principle that "where matters of aircraft safety are concerned there should be no allocation of individual responsibility without proof of the professional competence of that individual. The assessment of . . . competence should be made . . . by the State."

The opposite view was taken by a group headed by the International Air Transport Association, who suggested that the responsibilities could be left to the operator, as the State carried

the final responsibility anyway. But by the end of the sub-committee stage the I.F.A.L.P.A. resolution had received some backing. Further discussion and consideration in the committee stage led to diminished support for I.F.A.L.P.A. policy, and the amendment to I.C.A.O. Annex 1 (*Personnel Licensing*) that was eventually hammered out from the proposals recommended that: "where the privileges of [the holder of an aircraft maintenance engineer's licence] are vested in an approved organization, the Contracting State shall ensure by the requirements it imposes for approval of the organization that an equivalent level of competency is maintained. In such an approved organization, the Contracting State shall ensure that the privilege of issuing a maintenance release is restricted to individuals who are not less than 21 years of age and who have knowledge and experience equivalent to that [required by the Annex]."

Although this amendment (which has still to be approved by the I.C.A.O. council) by no means completely endorses I.F.A.L.P.A.'s point of view, it serves as an excellent example of the contribution that the pilots' federation makes to the preparation and amendment of I.C.A.O.'s International Standards and Recommended Practices.

The Federation's agitation for the highest standard of air safety extends to many phases of aircraft operation and design. No one is better qualified to pronounce on flying control "feel" than the pilots, and it is of particular interest to note the adoption—as an item for future work—of I.F.A.L.P.A.'s policy on flight controls into the I.C.A.O. report. For over two years the Federation have been pressing for special precautions to be taken where low stick-forces for a given response are encountered. The requirement of the I.C.A.O. report is now worded "If the control forces (including but not confined to stick-forces per unit normal acceleration) are unusually light or do not vary in the usual manner with speed, special precautions are taken to ensure that the risk of structural damage is not thereby increased." The I.C.A.O. member States have been invited to exchange information on this item. Further discussion at subsequent conferences may then result in an "acceptable means of compliance" being formulated.

### GREAT CIRCLES OVER THE PACIFIC

**S**UBJECT to approval by C.A.B. and President Eisenhower, Pan American World Airways have been granted permission to operate a Great Circle route across the Pacific to Tokyo. The approval—recommendation by a C.A.B. examiner, Mr. William Cusick, represents at least a partial victory for PanAm in their long campaign for Great Circle routes from the West Coast to the Orient. The airline at present operates to Tokyo from Los Angeles and San Francisco via Honolulu.

PanAm's application has been strongly contested by Northwest Airlines, who serve Tokyo from Seattle and from Portland, Oregon, and already fly a Great Circle route on some eastbound services (on flights between the West Coast and Tokyo a stop is made at Anchorage, Alaska). The C.A.B. examiner's Solomon-like apportionment of traffic between the two airlines will allow PanAm to operate its Pacific Great Circle route from Los Angeles and San Francisco, but avoids direct competition by refusing a further application from PanAm to operate services to the Orient from Northwest's Seattle and Portland terminals.

Mr. Cusick concluded that direct competition would have a disastrous effect upon Northwest, and one that might result in a request for the reintroduction of government subsidies. Both airlines—with the carriage of increased passenger traffic (26,715 in 1952 and 51,800 in 1955) and military mail—have become self-supporting since 1952, when \$12.7m subsidy was paid. Although Northwest can expect to lose some passengers to PanAm, further growth of trans-Pacific traffic (the C.A.B. examiner thought that