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CARRIAGE OF NARCOTICS IN FIRST-AID KITS OF AIRCRAFT
ENGAGED IN INTERNATIONAL FLIGHTS

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1. Introduction

At its thirtieth session in April 1957, the Council of the International Civil Aviation Organization invited the World Health Organization to undertake a study on the carriage of narcotic drugs in first-aid kits on aircraft engaged in international flights. On 28 July 1958, the Economic and Social Council of the United Nations¹ requested the Secretary-General to prepare (if the World Health Organization study supports the carriage of narcotic drugs in first-aid kits on aircraft engaged in international flights) a report on the legal problems involved. In particular, this report was required to deal with the application of efficient safeguards against abuse and of principles under which opiates or similar drugs might be used and carried in first-aid kits on board aircraft in an effort to promote uniformity under existing laws.

2. Historical Background

In accordance with provisions of the Convention of International Civil Aviation, signed at Chicago on 7 December 1944, the ICAO Council recommended (but did not make mandatory) that all aeroplanes should be equipped on all flights (not only international ones) with a first-aid kit containing, inter alia, a narcotic drug. The relevant provision of Chapter 6, paragraph 6.2(a) of Annex 6² to this Convention, dealing specifically with aeroplane instruments and equipment, reads as follows:

"All aeroplanes on all flights shall be equipped with (a) an accessible and adequate first-aid kit. Recommendation - the first-aid kit should include a handbook on first aid, bandages, antiseptic gauze, adhesive plaster, absorbent cotton, safety pins, tourniquet and haemostatic bandage, scissors, haemostatic forceps, water-miscible antiseptic, analgesic, narcotic, stimulant, and remedy for burns."

¹ United Nations, Economic and Social Council (1958) Official Records, twenty-sixth session, 1-31 July 1958. Supplement No. 1: Resolutions, Geneva, p.15, (Document E/3169)

² Convention on International Civil Aviation, International Standards and Recommended Practices, Operation of Aircraft, Annex 6, Chapter 6

In conformity with the foregoing ICAO recommendation, it would appear that those airlines who were enabled by their national laws to carry narcotics (opiates or otherwise) in the first-aid kits of aircraft had experienced little or no difficulty, until in 1955 one of the Contracting States reported to ICAO that they were having difficulties owing to certain Contracting States prohibiting the carriage of even the mildest forms of opiates and their derivatives in first aid kits on aircraft engaged on international flights.¹ Consequently, ICAO on 1 August 1956, addressed a circular letter to governments of Contracting States requesting them to give information on the following points:

- (a) Is it believed necessary to carry opiates or drugs containing opiates and their derivatives in the first-aid kits of aircraft for use in case of emergency according to Annex 6, paragraph 6.2(a)² or in the kits carried by airlines for the relief of passengers suffering from certain diseases?
- (b) Do the regulations in your country prohibit the carriage of drugs containing opiates or their derivatives in limited quantities in first-aid kits on board aircraft on international flights? If so, under what safeguards would you allow such drugs to be carried?
- (c) Do the regulations of your country prohibit a qualified crew member from administering subcutaneous or intravenous injections in case of emergency on international flights?

Subsequently, the Air Navigation Commission of ICAO at the eleventh meeting of the twenty-fourth session on 25 February 1957, considered the replies received from Contracting States to the questionnaire referred to above, as reported by ICAO Council on 7 March 1957.³ Substantive replies were received from twenty-eight Contracting States, also from Belgian Congo and Netherlands Antilles. In addition, comments were received from the United Nations Division of Narcotic Drugs.

¹ For the text of this letter, see ICAO document C-WP/2372.

² Convention on International Civil Aviation, International Standards and Recommended Practices, Operation of Aircraft, Annex 6, Chapter 6

³ See ICAO document C-WP/2372.

the International Federation of Air Line Pilots' Associations (IFALPA), the Aero-Medical Association and the Air Transport Association of America (ATA) (through the United States Government). Full details of these replies and an analysis of them will be found in the relevant ICAO document.¹ For ease of reference a tabulated summary of the replies of the Contracting States is at Appendix A. From this will be seen:

(a) that the great majority of the States which answered the questionnaire considered that opiates were either necessary or desirable in first-aid kits of aircraft for use in emergency (19 out of 30; only 6 stating that they were unnecessary);

(b) that the great majority of the States do not have regulations prohibiting the carriage of opiates in limited quantities under safeguards in first-aid kits on aircraft on international flights (22 out of 30; but 6 prohibited their carriage);

(c) that the great majority of the States do not have regulations prohibiting certain qualified crew members from administering injections of opiates in certain emergencies in flight, though a few specified that it must be on a doctor's advice, if necessary by radio (19 out of 30; but in 6 States crews are prohibited from giving such injections). In this connexion, a qualified crew member is understood to mean one who has had either a training as a nurse or a special course of instruction in the administration of such injections.

The Air Navigation Commission concluded that the difficulties reported by one of the Member States might have been caused by a lack of uniformity of national laws and practices developed under a complex system of international Narcotic Conventions as well as by the conditions under which opiates and similar drugs were carried on aircraft. It appeared possible to eliminate existing and potential difficulties of certain Member States if effective control and safeguards against abuse, such as quantity limitations, could be more generally agreed by all Contracting States in applying 6.2(a) of Annex 6.²

¹ See ICAO document C-WP/2372.

² Convention on International Civil Aviation, International Standards and Recommended Practices, Operation of Aircraft, Annex 6, Chapter 6

At the eighth meeting of its Thirtieth Session on 1 April 1957, the Council of ICAO,¹ having considered the Air Navigation Commission's report, decided:

- (i) that States be informed of the study by the Commission and of its conclusion that the Recommendation in 6.2(a) of Annex 6 to the Convention on International Civil Aviation - Operations, relating to the carriage of analgesics and narcotics, continues to be satisfactory and that the carriage of opiates and derivatives in aircraft first-aid kits is considered desirable;
- (ii) that States be invited to note the implication associated with this Recommendation that carriers should be permitted to carry the contents of first-aid kits listed in Recommendation 6.2(a) of Annex 6, on international flights, in reasonable quantities under control according to international narcotic laws and subject to satisfactory safeguards against abuse; and that it is desirable that any differences that might exist in this respect be notified to ICAO;
- (iii) to invite the Economic and Social Council and the World Health Organization to study the related medical and legal problems, in particular the application of efficient safeguards against abuse and of uniform principles under which opiates or similar drugs might be used and carried in first-aid kits on board aircraft in an effort to promote uniformity under existing laws.

This invitation was transmitted to the World Health Organization by the Secretary-General of the International Civil Aviation Organization on 13 May 1957.

Further action by ICAO on 27 May 1957,² was to send a circular letter to governments of Contracting States, informing them of the results of the Air Navigation Commission study, and embodying the following points:

- (a) That a substantial majority of States in their replies have indicated that the carriage of opiates in aircraft first-aid kits as recommended in paragraph 6.2(a) of Annex 6 is necessary or desirable. It was also noted that up to date no differences or comments have been notified by States

¹ See United Nations, Economic and Social Council (1957) Resumed twenty-fourth session, Annex (document E/3054).

² For the text of this letter, see United Nations, Economic and Social Council (1957) Resumed twenty-fourth session (document E/3054, pages 3 and 4)

regarding this Recommendation. The Commission, in the light of the comments received, concluded that Recommendation 6.2(a) of Annex 6 is still generally acceptable to States and that there is no reason for its amendment.

(b) That it is apparent from the comments of States that the majority do not prohibit the carriage of opiates in reasonable quantity in aircraft first-aid kits on international flights, subject to satisfactory safeguards and regulations by the State of Registry to prevent abuse and in accordance with international narcotic legislation. Some States pointed out that they consider drugs carried in aircraft first-aid kits as being part of the aircraft equipment. This concept is supported by 6.1 of Annex 6. The minority of States, however, have pointed out that under their national laws they cannot permit the carriage of opiates or narcotic drugs in aircraft first-aid kits. This restriction also affects aircraft of other States, prohibiting them from carrying opiates and similar drugs in their first-aid kits over the prohibiting States' territory, although the State of Registry may permit such carriage. It is therefore very desirable that States should notify ICAO of any difference in respect of 6.2(a) of Annex 6.

(c) That there is need for further study of the related medical and legal problems, and that the Council had decided to invite the Economic and Social Council and the World Health Organization to study these matters, in particular the application of efficient safeguards against abuse and of uniform principles under which opiates or similar drugs might be used and carried in first-aid kits on board on international flights in an effort to promote uniformity under existing laws.

As a result, on 2 December 1957, ICAO informed ECOSOC¹ that, although replies had not yet been received from all States which had earlier reported difficulties, those in hand indicated that while some of these States do not permit their national

¹ For the text of this letter see United Nations, Economic and Social Council (1957) Resumed twenty-fourth session, p. 1 (document E/3054).

carriers to carry these drugs they do not object to the carriage of strictly controlled and limited quantities of narcotics in first-aid kits as aircraft equipment by foreign carriers entering their territories and that they do not wish to notify differences to the Recommendation of Annex 6 to the ICAO Convention in this respect. This seemed already to indicate some clarification of the situation.

The Economic and Social Council, at its 1042nd plenary meeting, on 28 July 1958,¹ considered this matter and recommended, pending action to be taken in the light of the recommendations to be received from the World Health Organization, that governments take all necessary measures to prevent the misuse and diversion for illicit purposes of narcotic drugs carried in first-aid kits of aircraft engaged in international flights, in particular by ensuring that such drugs are kept in sealed or locked containers to which only authorized persons have access; that adequate records of supply and use, and of stocks of narcotic drugs are maintained by the airline companies concerned, and that such records and stocks are subject to regular inspection. In addition, the Commission on Narcotic Drugs was invited to consider a report to be prepared by the Secretary-General following the report of the World Health Organization referred to above and to advise the Economic and Social Council whether further measures should be recommended to governments for application.

3. The Problem

The main points that have been raised against permitting the carriage of narcotics in the first-aid kits of aircraft engaged in international flights concern the prohibition of such carriage by some countries; the danger of abuse and illicit use; that they are addiction-producing; and that the cabin staff are neither capable of making a diagnosis of the type of case needing such treatment, nor do they possess adequate knowledge to administer such drugs by injection, and in certain countries they are legally prohibited from so doing.

¹ United Nations, Economic and Social Council (1958) Official Records: twenty-sixth session, 1-31 July 1958. Supplement No. 1: Resolutions, Geneva, p. 15 (document E/3169)

From a study of the historical background of the carriage of opiates in first-aid kits on aircraft, it is obvious that the magnitude of the problem is not as great as it first appeared to be three years ago when one of the contracting states reported its difficulties to ICAO.¹ For instance, the recent replies by governments to ICAO circular letter^{2,3} indicate that some of the States which do not permit their national airlines to carry these drugs, do not object to the carriage of strictly controlled and limited quantities of narcotics in the first-aid kits as aircraft equipment by foreign carriers entering their territories.

The danger of abuse of narcotics and of their being diverted into illicit channels is easily prevented by strict limitation of supplies, control of stocks and issues, keeping the drugs in a sealed compartment in a sealed container in a secure place under the care of the captain, and by maintaining accurate records of all issues and expenditures subject to proper inspection. This has been the practice in many airlines over a number of years and has prevented any misuse.

The question of the development of an addiction does not arise, as only small doses are used in aircraft - half a grain of morphine as a maximum - for any one case of emergency during the flight. Certain cases travelling under the care of a doctor or nurse may be on narcotic treatment and may require greater dosage, but such drugs are, or should be, prescribed and provided by the patient's doctor.

Many of the cabin staff, particularly stewardesses or hostesses, are trained nurses and, in many airlines, those who are not are given a good first-aid and elementary nursing training before doing flight duties. This training includes practical instruction in giving subcutaneous injections and dealing with the various emergencies likely to arise during air travel. Incidentally, they are instructed to note symptoms and signs in cases of severe illness and report accordingly in writing to the captain, so that he can radio to the nearest or most suitable airport for a doctor's advice having given him the symptoms. Normally, a narcotic would not be given unless a doctor ordered it, except possibly in dire emergency - for example, a person becoming berserk and threatening the safety of the aircraft.

¹ For the text of this letter, see ICAO document C-WP/2372.

² For the text of this letter, see United Nations, Economic and Social Council (1957) Resumed twenty-fourth session, pp. 3 and 4 (document E/3054).

³ For the text of this letter, see United Nations, Economic and Social Council (1957) Resumed twenty-fourth session, p. 1 (document E/3054).

In a working document of the Commission on Narcotic Drugs,¹ a number of points to be considered are enumerated:

(a) Should narcotic drugs be included in the emergency kits of aircraft engaged in international flight?

(b) If the question under (a) is answered in the affirmative, which drugs and what quantities of each of them should be carried?

(c) If the question under (a) is answered in the negative, which non-narcotic substances could be used as substitutes?

(d) If narcotic drugs are to be carried:

(i) Should their use be authorized for emergency purposes only or also the treatment of sick passengers?

(ii) What safeguards should be used to protect against diversion or theft; locks, seals, etc.?

(iii) What records should be kept and what reports be made and to whom?

(iv) What arrangements for inspection should be made?

(v) Which crew members should have access to the narcotics and who should be allowed to administer them?

(vi) What should be the personal requirements (qualifications) for the licence to have access to the narcotic drugs and for the licence to administer them?

(vii) What kinds of administration should be admitted; oral only or also subcutaneous and intravenous?

(viii) Should prior consultation with a doctor by radio be required except in cases of extreme urgency?

(ix) Where should the acquisition of drugs be permitted; in the country of registry only or also in other countries?

¹ United Nations, Economic and Social Council, Commission of Narcotic Drugs, thirteenth session, pp. 3 and 4 (Mimeographed document E/CN.7/344)

(x) What training should be provided for crew members licensed to administer the narcotics?

Replies to the items raised in the above questionnaire are as follows:

(a) Narcotic drugs are required in the emergency first-aid kit of aircraft engaged in international flights so as to be available for use in two types of emergency: (i) to give succour to certain seriously injured casualties in the event of crashes in isolated places, and (ii) for the treatment of passengers who may be taken ill suddenly in flight with certain conditions which are attended by agonizing pain.

The actual number of crashes of aircraft engaged in commercial civil flying is not decreasing nor is the casualty rate,¹ despite improvements in the design of aircraft and safety aids both in the air and at airports, owing in the main to the great increase in the number of scheduled flights and passengers carried. Aircraft accidents will continue to occur as a result of human errors, mechanical defects, and adverse meteorological conditions. In about 70 per cent. of crashes there are survivors, some of whom are liable to suffer from severe burns and fractures accompanied by much pain and shock. These cases require prompt medical treatment, including an opiate, and this would not be available if the crash occurred in some remote place, unless it were carried on the aircraft. Though the great majority of crashes take place on or near airports, where speedy medical help can be expected, about 20 per cent. of them occur elsewhere, some being in isolated areas.

As regards sick passengers, it is not the accepted practice of most airlines to provide drugs and medical equipment for their treatment en route. The onus for this provision is on the passenger's doctor, who should know his patient's condition, habits and idiosyncrasies. If an airline were to provide for such cases, there would be a possible danger of overdosage or incompatibility, at least in some cases.

The current practice is to carry two types of first-aid outfits. One is a general purpose kit in the charge of the chief steward, and it contains medical supplies to deal with minor ailments or injuries that may occur during flight - no

¹ International Civil Aviation Organization (1958) Annual Report of the Council to the Assembly for 1957, (supporting document for the eleventh session of the Assembly) p. 9

narcotic or dangerous drugs are included. The other is a sealed emergency kit in which any narcotics or dangerous drugs are kept in addition to splints, dressings and certain medicaments that may be required in an emergency. This kit is in the custody of the captain of the aircraft and it is opened only with his consent: if opened, the fact and details regarding any drugs used must be entered in his log.

Experience reveals that narcotics are infrequently needed in flight, but when they are it is a matter of considerable moment. On an average they are used once or twice a year in a major airline for the purpose of alleviating agonizing pain in cases of sudden onset of colic and in some cases of severe coronary disease, also to quieten a passenger who goes berserk and cannot be dealt with adequately by sedatives, such as barbiturates. In the event of such episodes occurring in flight, if a narcotic were not available on board, the captain might be forced to deviate from his scheduled flight plan to off-load the casualty at the nearest suitable airport. This would be costly in time and money, and would cause considerable delay to the other passengers, many of whom might have important appointments to keep or connexions to make. Moreover, diversions will become more difficult with commercial jet flying, than with current types of aircraft, owing to the narrow margin of fuel reserve and the need for much longer runways. The latter requirement rules out the use of many airports. The giving of a narcotic on the advice of a doctor, by radio if one is not among the passengers, is a relatively simple means of giving relief to the case and permitting the flight to continue as scheduled. In addition, in the confines of an aircraft where there is no adequate isolation, it is important to deal with such cases quickly and effectively, not only in the interest of the patients but also in that of the crew and other passengers who are greatly perturbed by such episodes. Under such conditions, the use of suitable narcotics is not only humanitarian, but may save the life of the patient, and preserve the comfort and morale of all on board. It would also prove an economy for both airline and passengers in obviating the need for an unscheduled landing, and possibly preserve the safety of the aircraft.

(b) The narcotic drug of choice for inclusion in emergency first-aid kits of aircraft is some form of opium alkaloids, preferably morphine, as it is the one that combines the attributes of quickly and safely relieving pain, and helping to counteract shock. If other drugs were carried, more than one type would be necessary. Moreover,

the names "opium" and "morphine" are well known throughout the world and are unlikely to be garbled in any messages sent, and all doctors and nurses know the action of this drug.

The quantity of narcotics to be carried should be as small as practicable in relation to probable requirements. One quarter to one half of a grain (0.0162 to 0.0324 gram) of morphine is considered to be adequate to tide over most cases until they are transferred to proper medical care at the next port of call. Experience in crashes of various degrees of severity with current types of aircraft (up to 50-60 passenger-seaters) indicates that from two to five of the casualties may require early medication with morphine. It is considered, therefore, that the minimum supply should be six 1/4 grain (0.0162 gram) doses of morphine and a maximum of twelve doses (i.e., a total of three grains or 0.2 gram); the latter amount being to provide for repeat treatment should medical help be delayed as in some remote places. In most such instances, the crash would be located and relief sent within two days, and, where a direct relief landing could not be made within that time, doubtless various supplies, including appropriate drugs, would be dropped and probably a doctor would be landed by parachute, or maybe by helicopter, if distance permitted. For larger aircraft carrying more than 50 passengers (some now carry 100 and the number will shortly rise to 150 or more) the supply of narcotics would have to be increased, but to what degree it is impossible to say until there has been sufficient experience. It is suggested, however, that the total amount on board should not exceed six grains or 0.4 gram. In any case, whatever the size of the aircraft, it is a wise precaution to divide the narcotic into two equal amounts, one lot being in the sealed kit in the vicinity of the flight deck and the other in a similar container in a secure place near the tail end of the aircraft where it has the best chance of surviving a fire and can be obtained from the outside, in the event of a crash. This procedure helps to ensure that at least one emergency kit will be salvaged after a crash. In such an event, it is important to salvage all first-aid kits containing narcotics, and even in instances where there is more or less complete destruction of the aircraft, search should be made for these kits before they are struck off the airline's narcotic drug register as being destroyed. There have been examples of such kits being found comparatively undamaged among the wreckage of disintegrated, burnt-out aircraft.

(c) Non-narcotic drugs are not suitable for the emergency purposes envisaged above, as they have not got the necessary properties, though they have their uses for other conditions that may arise in flight (e.g. tranquillization or sedation). Each airline must be free to act according to its needs in the carriage of non-narcotic drugs, which may, in some airlines, be additional to the narcotic carried. Incidentally, any drug which has euphoric or sedative action may cause addiction.

(d) The administration and control of narcotic drugs for use in aircraft requires a most careful organization to prevent improper use or diversion for illicit purposes.

(i) Their use should be authorized for emergency purposes only, that is, in crashes or accidents on board and in the event of passengers being taken suddenly ill with certain severe conditions, but not for the ordinary medical treatment of sick passengers who should receive all drugs required from their doctor before flight.

(ii) Safeguarding against diversion or theft of narcotics on aircraft should be attained by keeping them in a special sealed compartment inside an emergency first-aid kit, which itself also should be sealed. These seals should have confidential code numbers to prevent unauthorized resealing if opened against instructions. All such emergency kits should be kept in secure places under the charge of the captain of the aircraft and opened only with his consent. If opened, the captain must enter the fact in his log and give details of the place, time of occurrence, what was removed and for what purpose. He should then temporarily reseal the kit, keep it in his personal custody, and arrange for replenishing (if possible) and resealing at the first opportunity. If this is done at an airport en route, the kit should be resealed with the code number of the store after an appropriate note has been inserted, so that the medical authority at base knows for certain where the transaction took place and can make appropriate inquiries, if necessary. Throughout the whole flight service, the security of these emergency kits should be checked as part of the pre-flight take-off drill at each airport en route: it should be sufficient

to check their presence and that the seals are intact. At transit stops, either a crew member or a responsible member of the ground staff should be on the aircraft, acting as security officer, to guard against thefts of anything on board during transit servicing. At long stop-overs, the emergency kits may be left on board if the aircraft is locked or handed over to a responsible person on the airport for safe, locked custody pending departure. When a service is completed, these kits should be delivered by a delegated crew member or security officer to the base medical quarters or medical stores for inspection and subsequent resealing, if necessary, before issue, and a signature should be obtained for the kit. In the event of any discrepancy, the medical department of the airline should immediately institute a careful investigation of all relevant facts, and report the occurrence to the government department responsible for issuing the narcotic licence. Appropriate steps should also be taken to prevent a recurrence of any irregularity.

(iii) Detailed records of narcotics should be maintained by the medical authority of the airline to whom the licence for narcotic drugs is granted. The records should show the date, the exact amount of each issue of the drug, and to whom it is issued. In the case of emergency first-aid kits, each should be stamped with a reference number for identification, so that issues of narcotics can be made against them. Each kit should be opened and checked as regards contents at least at quarterly intervals, and the fact appropriately recorded. If the issue is to an individual (e.g. an airline doctor in charge of a medical centre) he must sign for it and keep a personal register in which he must account for any of the drug expended, and submit a duplicate copy of his records to the issuing officer at stated periods, preferably quarterly. In addition, a record of stocks and issues, etc., of these drugs should be made, on a special official form, to the licensing authority at stated periods.

(iv) Inspection of narcotic drugs carried in first-aid kits on aircraft and those held in stock would be the concern of the licensing authority of the country of registry, and appointed representatives of this authority would doubtless have power of inspection, whenever they considered fit, to

see that proper security measures were operative and that records were in order. If such kits on aircraft are agreed internationally to be part of the equipment of aircraft, as implied in ICAO Convention, paragraph 6.2(a) of Annex 6,¹ there appears to be no call for inspection at foreign airports, especially if it be conceded that the limited amount of narcotics carried in the first-aid kits are not classified as import, export or transit items. There should, however, be no objection to the competent local authorities carrying out checks, inspections and other control measures on board the aircraft, if they so desired, without previous notification, except that this might mean breaking the seals - an undesirable procedure. In addition, the holder of the airline licence for narcotics should arrange for periodic checks on stocks and issues.

(v) Access to and administration of narcotic drugs in the emergency first-aid kit should be only with the captain's consent. The administration of such drugs should be confined, as far as the crew is concerned, to members who have had a training in the technique required. For this purpose, all cabin staff should have special instruction. This is in line with the practice allowed for ships at sea without a doctor or nurse. (However, if there is a doctor or trained nurse among the aircraft passengers, as is often the case, he or she would doubtless officiate.)

(vi) Licence for the issue of narcotic drugs for use in first-aid kits in aircraft should be strictly limited to those airlines and companies which have a medical service capable of organizing and administering at all steps the safeguards outlined in the preceding paragraphs. It would be for the licensing authority concerned to be satisfied on this point. The chief medical officer of an airline should be the licensee.

¹ Convention on International Civil Aviation, International Standards and Recommended Practices, Operation of Aircraft, Annex 6, Chapter 6

- (vii) Administration of opiates or their derivatives should preferably be subcutaneously, but never intravenously. There is no objection to the oral medication, except that the drug is slower in action and may not be completely absorbed. In emergencies on aircraft quick action is desirable in the interest of all concerned. The most convenient method of giving morphine injections on aircraft or after crashes, is to use tubonic or syrette ampoules. Each ampoule contains 1/4 grain or 0.0162 gram of morphine, and is complete with a fine hypodermic needle attached, which is protected and kept sterile by a strong plastic shield. These ampoules have been used for many years and have been found to withstand adequately the temperature and pressure changes encountered globally in flying. Some airlines, however, may prefer to use oral medication of opiates as being cheaper, lighter and more compact, simpler to administer and less liable to deteriorate than the ampoule form. Intravenous injections, however, should not be given by anyone other than a doctor.
- (viii) Consultation with a doctor by radio, unless there is a doctor among the passengers, should be made by the captain of the aircraft before he authorizes the opening of the sealed first-aid kit for the administration of a narcotic for an emergency in flight, except in case of extreme urgency. At many international airports there are doctors on duty night and day, and at others there are doctors on call, appointed by the local health authority, airport authority or by the various airlines. Normally, a reply to a radio call to most international airports should be speedy. In the case of undue delay, the captain should be permitted to act on his own initiative: it is considered that it would seldom be necessary for the captain to have to act in this manner, unless his radio were out of operation as it may be after a crash. The granting of this authority to the captain of an aircraft is akin to that which has been granted to the master of a merchant ship at sea without a doctor on board. The captain should include in his radio signal for medical advice as full details as possible regarding the symptoms and signs of the case, as reported to him in writing by the cabin staff (see also page 8). At

times there is a clue to the person's condition from drugs in his or her possession or from information given to the airline before the flight, and this, together with the advice of the airline's doctor, should be passed on in writing to the captain. In this connexion, many airlines encourage invalids to declare their condition when booking their passage, so that appropriate arrangements can be made for their care and comfort during the journey.

(ix) Acquisition of supplies of narcotic drugs should be from the country of registry only, for if supplies were obtainable in other countries there would be a possible avenue for abuse. The amount of narcotic likely to be used for the sudden illness of passengers or crew during a flight or a total service would be small, consequently a sufficient supply should remain for a further emergency should it arise. In the event of a crash, if severe the aircraft would probably be a write-off, so the narcotics would not require to be replenished: if the crash were of a minor nature and the aircraft was capable of resuming its flight after repairs had been carried out, casualties are likely to be few and only part of the narcotic supply would be used. Some airlines do, however, hold a small reserve of narcotics in secure custody at strategic points on long routes, by arrangement with the foreign authorities concerned. These small amounts are usually sent out from the country of registry, unless there are import difficulties.

(x) The training of crew members authorized to administer narcotics should be equivalent at least to that required for the First-aid Certificate of the Red Cross, Red Crescent and similar societies to give them an adequate basic knowledge of first aid. In addition, they should have special instruction in the practical use of syrette type of ampoules and of hypodermic syringes, also in the uses and dangers of narcotics, particularly the opiates, and the rules regarding their safe custody at all times when on service along the routes. Even stewardesses or hostesses who are registered nurses require some instruction in relation to flying. Only those airlines which have a medical service with organized courses of instruction for their cabin staff should, therefore, be licensed to carry narcotics in their first-aid kits.

4. Conclusions and Suggestions

(a) The great majority of Contracting States officiating under ICAO consider that opiates or drugs containing opiates or their derivatives are either necessary or desirable in the emergency first-aid kits of aircraft engaged on international flights for use in emergency; that they do not have regulations prohibiting the carrying of these drugs in limited quantities under effective safeguards against abuse in such aircraft; and they do not have regulations prohibiting qualified crew members from administering injections of these drugs in certain emergencies in flight. Moreover, some of the States which at present prohibit their national airlines from carrying opiates have notified ICAO that they do not object to the carriage of strictly controlled and limited quantities of narcotics in first-aid kits as aircraft equipment by foreign carriers entering their territories, and that they do not wish to notify differences to the Recommendation at Annex 6 to the ICAO Convention in this respect (pages 2 to 7).

(b) Practical experience over a number of years by most airlines which have carried opiates in their first-aid kits under the strict conditions imposed by their States of Registry has revealed that the methods adopted have prevented abuse and illicit use of these drugs: that is, strict limitation of supplies, control of stocks and issues, keeping the drugs in a sealed compartment of a sealed container in a secure place under the care of the captain, and the maintenance of accurate records of all issues and expenditures, and regular inspection both by the licensed airline medical department and the licensing authority. It is suggested that the fundamental principles governing the control of narcotics on aircraft should be on lines similar to those detailed at paragraphs (d)(i) to (vi) at pages 13 to 15.

(c) For the reliability of its action, an opiate is necessary in the emergency first-aid kits of aircraft to give succour to certain seriously injured casualties in the event of a crash in isolated places and for the treatment of passengers who may be taken ill suddenly in flight with conditions which are attended by agonizing pain, or to quieten a passenger who has gone berserk; otherwise, the captain might be forced to deviate from his scheduled flight plan, which might be a serious matter in the case of jet aircraft (see paragraph (a), pages 9 and 10).

(d) Morphine is the preparation of choice and should be given either orally or subcutaneously (but never intravenously). It should be supplied in 1/4 grain (0.0162 gram) doses and up to a maximum of 12 doses for an aircraft of 50 to 60 seats, and up to 24 doses for those carrying 100 or more passengers; that is, a total of 3 grains or 0.2 gram, or 6 grains or 0.4 gram, respectively (see paragraphs (b) and (d)(vii) at pages 11, 12 and 16).

(e) In the event of any crash careful search should be made for the emergency first-aid kits, as they may be found comparatively undamaged even among the wreckage of disintegrated, burnt-out aircraft (see bottom of page 12).

(f) The use of narcotic drugs should be authorized for emergency purposes only, as passengers under medical treatment should bring their own drugs as prescribed by their doctor (see paragraph (d) at page 13).

(g) Safeguarding against diversion and theft of narcotics should be attained by keeping them in special sealed compartments inside an emergency first-aid kit container, which should also be sealed with a code number; and by detailed airline instructions on the matter as approved by the State of Registry (see paragraph (d)(ii), pages 13 and 14). This implies that opiates must never be kept in open kits carried on aircraft for the relief of minor ailments.

(h) Detailed records of stocks, issues and expenditures of narcotics should be maintained by the licensee in a form approved by the licensing authority. All kits should be marked for identification purposes, opened and checked at regular intervals. Inspections should be made also by the licensing authority, and there would appear to be no strong objection to the competent local authorities at foreign airports carrying out check inspections as regards control measures on aircraft of other States (see paragraphs (d)(iii) and (iv), pages 14 and 15).

(i) Access to and administration of narcotic drugs should be only with the captain's consent, and the actual administration should be confined to a qualified member of the cabin staff. This is in line with the practice allowed internationally for ships at sea with no doctor on board (see paragraph (d)(v), page 15).

(j) The administration of opiates on aircraft should not be subject to a personal medical prescription, but the administrator concerned should make a written report regarding the dose given, time and circumstances, and lodge this with the captain (see paragraph (d)(ii), page 13).

(k) The licence for issue of narcotic drugs for the use in airline operations should be strictly limited to carriers having a medical service capable of organizing and administering the efficient control of these drugs throughout their whole field of operations. The chief medical officer of the airline should be the licensee (see paragraph (d)(vi), page 15).

(l) Normally the captain of an aircraft should consult a doctor by radio before authorizing the administration of a narcotic for an emergency in flight, except in extreme urgency or when out of radio contact (see paragraph (d)(viii), page 16).

(m) The acquisition of supplies of narcotic drugs should be from the country of registry only, both as regards supplies for the home base and for any depot at selected airports on long routes (see paragraph (d)(ix), at page 17).

(n) The training of crew members authorized to administer narcotics on flight services should include an adequate basic first-aid training and special instruction in the practice of giving subcutaneous injections (see paragraph (d)(x), page 17).

(o) It is suggested that, in view of the foregoing, Recommendation 6.2(a) of Annex 6 of ICAO Convention¹ needs no amendment as far as narcotics are concerned, but it does require amendment regarding some other items listed, particularly the "tourniquet" which is outmoded and can be almost as dangerous as a narcotic.

¹ Convention on International Civil Aviation, International Standards and Recommended Practices, Operation of Aircraft, Annex 6, Chapter 6

APPENDIX

CARRIAGE OF OPIATES IN FIRST-AID KITS ON AIRCRAFT

Summary of Comments from Contracting States

(In answer to ICAO circular letter SR.49/2-339 of 1 August 1956)

Contracting State	Is it necessary to carry opiates or their derivatives in first-aid kits of aircraft for use in emergency?	Do regulations in your country prohibit carriage of opiates or their derivatives in limited quantities and under safeguards in first-aid kits on aircraft on international flights?	Do regulations in your country prohibit a qualified crew member from administering injections of opiates or their derivatives in case of emergency in flight?
ARGENTINE	Yes	No	No (if trained)
AUSTRALIA	Desirable	No	No (if trained)
AUSTRIA	-	No	-
BELGIUM	Yes	No	No (on advice of doctor)
BELGIAN CONGO	Yes	Prohibited (at present)	Prohibited
CANADA	Yes	No	No
CEYLON	Yes	No	No (if trained)
DENMARK	Yes	No	No (if trained)
DOMINICAN REPUBLIC	-	No	-
ETHIOPIA	Desirable	No	No (if trained)
FINLAND	Desirable	No	No
FRANCE	Yes	No	-
GERMANY (Federal Republic)	Unnecessary	Yes (opiates not permitted but other analgesics are)	Opiates prohibited
IRELAND	Unnecessary	No	Prohibited
ISRAEL	Unnecessary	Yes	No (if trained nurse)
ITALY	Yes	No	-
JAPAN	Unnecessary	Prohibited	Prohibited
LAOS	No objection	No	No (if trained nurse)
NETHERLANDS	Doubtful	Prohibited	Prohibited
NETHERLANDS ANTILLES	Unnecessary	Prohibited	No (with permission of airline doctor)
NEW ZEALAND	Desirable	No	No (if trained nurse)
NORWAY	Yes	?	Prohibited
PAKISTAN	Yes	No	No (if trained)
SWEDEN	Yes	No	No (if trained)
SWITZERLAND	Yes	Swissair only	No (if authorized by Captain)
UNION OF SOUTH AFRICA	Problem should be considered further by	by ICAO	
UNITED KINGDOM	Desirable	No	No (in extreme emergency)
UNITED STATES	May be appropriate	No	No (on doctor's advice by radio)
URUGUAY	Yes	No	No
VENEZUELA	Yes	No	No