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INTERNATIONAL



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**Roundtable:** International hospital providers debate the impact that accreditation has had on their repatriations, and what the future holds for healthcare on the world stage—pg30



**One 2 One:** Exclusive interview with President and CEO of American Medical Centers, Alex Sokol, gives an insight into how health service provision has changed in the Ukraine and Russia, and what challenges lie ahead—pg16



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## **Aircraft for Repatriation Operations Questions**

### **1: Start with a run down of the aircraft in your fleet that are used for patient repatriation operations and why?**

Until recently the FAI fleet relied on a rather diverse array of aircraft, a Citation I, a Citation II, and two Lear 35 jets. Since the Citation I has shown itself to be of limited value as far as air ambulance service is concerned (due mainly to cabin space and range restrictions), it was sold at the end of last year and replaced by a Learjet 55. At the present we are further upgrading our fleet by exchanging the Citation II for a further Lear 55. The economically efficient Learjets will remain the backbone of the fleet for the future, given their so far unequalled performance, and their ability to serve the whole range of flight profiles, from short to long range, optimally. While the two Learjets 35A are used first and foremost for short and intermediate range missions, the two Learjets 55 are mostly used for intermediate and long range missions.

### **2: Talk us through a typical patient experience from place of origin to destination concerning type of aircraft?**

Since the speedy Learjets we are using have a non-stop flight range of about 3500 km, patients can be flown non-stop from the whole Mediterranean area to all destinations in northern and central Europe. For instance the transport time from Antalya to London is only 4 hours 15 minutes, and that from Malaga to Copenhagen only 3 hours 45 minutes. These relatively short transport times are usually perceived by patients as providing adequate comfort in contrast with that afforded by aircraft with slower speeds and shorter ranges, with the subsequent need of landing for fuel stops. Learjets are also on one hand relatively fast for patients and on the other hand very competitive economically for truly long range flights, as for instance New York to Frankfurt, which requires only two fuel stops and a total flying time of 11 hours 30 minutes.

### **3: What is your operating range, and do you provide International repatriation? Give us a brief of a stand out operation that was in some way complicated or long-winded, and how did your aircraft, equipment and crew stand up to the task?**

With the exception of a few areas in the Pacific region that are lying outside the flying range of our aircraft, we basically operate on a worldwide basis. In addition to all countries in Europe, the Middle East, and most of Africa, our other destinations in 2007 have included Australia, the Far East, as well as North and South America. Included among these are regular missions to crisis areas such as Iraq or Afghanistan. Our list of complex and long-duration flights is very long, and ranges from unplanned need to stabilise patients out of Shanghai for two days to the time constrained wing to wing transfer out of Lhasa to a multi-crew mission to Sao Paulo. We can finally state that given our twenty years of experience on the international scene, we expect to be able to meet even the most complex air ambulance service challenges in any area of the world successfully.



**4: Choosing an aircraft in your fleet often used for patient repatriation, give us a brief of the cabin environment onboard and the equipment that you carry?**

While the cabin space in a Learjet 35A can be seen as to be quite tight when it is fitted with all the intensive care medical equipment, it can nevertheless be argued that even for long flights that space is sufficient for a single patient. The use of the LJ35 is more problematic for double stretcher transports, as the space next to the stretcher, that are set one behind the other, is very constrained. The Lear 55, with its larger cabin, is better suited for that kind of mission. The equipment aboard our aircraft is not different from that available to our colleagues in the top tier of the air ambulance business. We use state of the art respirators and intensive care monitoring devices as well as essential basic equipment such as the Lifeport stretcher, the loading device, a coded set of medical kits etc etc.

**5: Do you provide bedside to bedside service? If so explain the procedure and problems of the service?**

We of course do offer bed-to-bed service as our standard, as the advantages of picking up and delivering the patients at the hospital are obvious. The only problem with this approach is that it can generate long and therefore influence the pilots' duty time. When long turnaround times are expected, we prefer to position the plane at the airport of departure on the day before the mission, and in a few cases, when the transport is extremely urgent, the patient can be delivered on the tarmac.

**6: Tell us about the personnel that man the flights, both medical and aviation. What is their typical training, qualifications and capabilities?**

FAI follows international guidelines as far as the composition of its medical crews is concerned. The crews consist of specially trained physicians and paramedics, and the minimum qualification criteria are set forth in FAI medical procedures manual:

- certified or eligible for certification in a relevant medical specialty and the requirement for additional training in the area of intensive care medicine
- routine management of intensive care patients within the scope of a broader medical practice
- at least 6 months experience in an emergency medical system
- basic knowledge of flight physiology and physiopathology
- participation in a special introductory course including a supervised training flight before acceptance into the FAI staff pool
- participation in a flight safety training program
- active participation in the in-house continuing education program including Crew Resource Management Training
- at least 24 air ambulance flights a year as a prerequisite for further activation

The pilots employed by FAI have a broad knowledge of the worldwide air ambulance business. In order to meet hiring criteria, pilots must demonstrate an experience of several years with a specific employment spectrum and they undergo a variety of training sessions required by licensing authorities



**7: What is your Headquarters operation and how do they assist the aircrew and medics during an operation?**

The staff of the FAI operations centre provides operational support for mission logistics to the pilots and the medical crew on a 24 hours a day basis 365 days a year. Professional flight planners and highly qualified staff provide comprehensive know-how about flight operations aspects such the obtainment of over-flight and landing permissions, knowledge concerning the airport infrastructures worldwide, as well as contacts with a network of medical service providers such as hospitals and ground transport organisations.

**8: AS aircraft operation is quite expensive, how do you provide cost containment during repatriation?**

As a cost-conscious operator we always seek to factor in specific cost-containment factors up front. We thus for instance offer to our clients alternatives to very expensive airports or plan our routings so as to contain costs if possible by for instance avoiding the over-flight of extremely expensive airspaces. We further offer an optimised floating base concept, which generates significant discounts above our already competitive standard prices for our clients through the reduction of empty legs.

**9: In wing to wing operation, possibly across borders and language, how do you ensure that information is accurately relayed and that the operation is accurately coordinated?**

As long as wing to wing transfers are carried out by two professional organisations with significant experience and functional logistical support, no loss of information should be expected as a rule and the successful performance of the operation should be guaranteed at the same time. Clearly, this also implies rigorous joint planning and strict adherence to the agreed upon process, as well as constant follow up by the home base team.

**10: Do you have telemedicine technology onboard and how do you relay a patient's condition to the receiving crew or hospital during the operation?**

We do not rely on any telemedicine technology at the present time and do not see these as relevant. We feel that the medical technology we use, with all its diagnostic modalities, combined with the experience of a highly qualified medical team and the possibility of at all times getting a second opinion through the use of the onboard sat phone are in our opinion largely sufficient to ensure efficient information transmission. We are nevertheless contemplating the full real time computerisation of our in-flight medical data in the near future, and therefore will increase our ability to forward accurate relevant information to clients and receiving facilities through confidential channels in a timely fashion soon.



**11: In today's international environment, taking into consideration world unrest and fear of terrorism, what does this mean to air ambulance operations, in terms of air space and airports, where time is of the essence?**

As a provider with an extensive service experience in all areas of the world, we have not necessarily noticed any great impact of the changes in the political context. Of course terrorist events such as those in the UK have a short-lived, yet temporary, negative influence on our operations. Delays and temporary partial «no go» areas may happen, but by and large do not have any significant effect on the resulting time performance since the problems are known to all and the clients are aware of them.

**12: If you were ordering a new fleet today, and could talk directly to an air ambulance designer, what would be your top, "must-have" wish list of requirements and features?**

The interior design of an air ambulance depends on the type of plane available. The air ambulance industry is hoping for the design and deployment on the market of a cost-efficient aircraft with sufficient cabin space for double stretcher transport and a non-stop range of at least 3500 km. As far as the medical technology is concerned we need comfortable space for the patient and lightweight oxygen supply systems.

**13: Do you think that short range missions with turboprop will be an increasing market?**

Short range missions are a growth area just like all others in the air ambulance industry. Whether this demand will continue to be met through the use of turboprop aircraft in the future is questionable, as there are hopes for the development of extremely cost-efficient jet aircraft with sufficient cabin space and the right range.

**14: What is your opinion on cheaper single engine operation and risk?**

As for single engine rescue helicopters, the use of single engine fixed wing aircraft should in the future be excluded on security grounds. If the air ambulance industry is seeking for the sake of patient safety to make the medical technology available totally redundant in order to control for possible equipment failure, then this should also apply to aircraft.

This having been stated, there are circumstances, especially in remote or isolated communities, where reliance on single engine planes remains the only option for the time being. Non compliance with the above standard can be understood in that context.