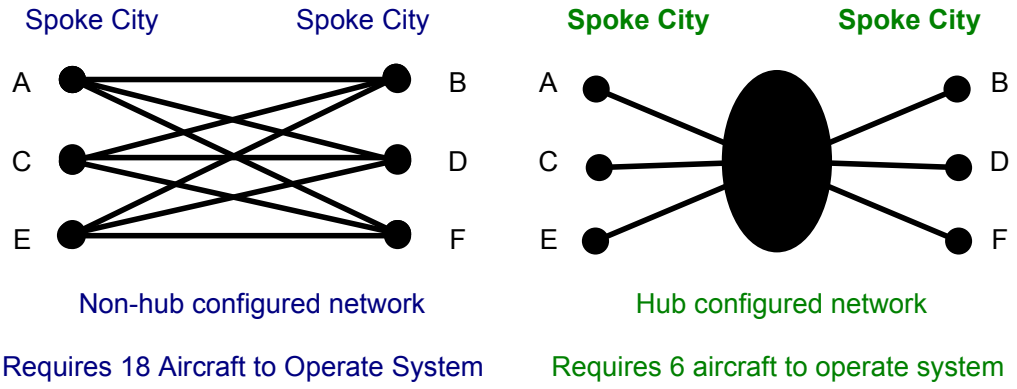
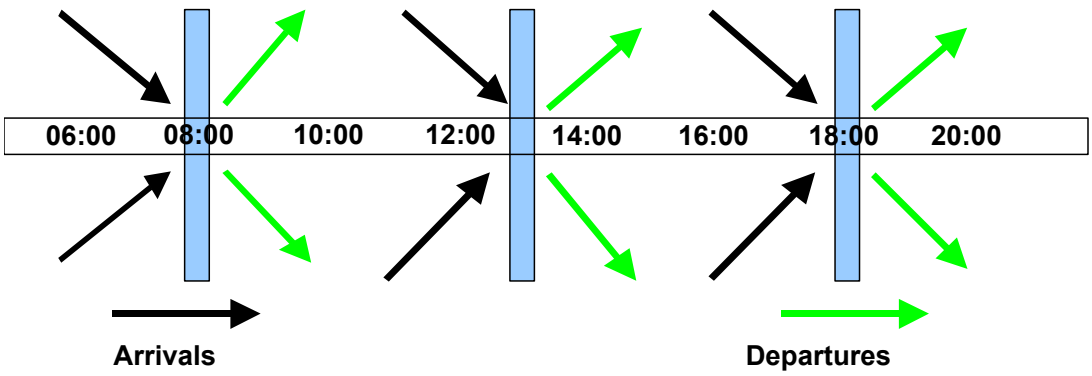
ANNEX C: HUB STRATEGIES

The conditions and scope for Manchester becoming a major UK 'hub' airport has been explored at various points within this RASCO report. The following sections provide further detail on the notion of a 'hub' airport.

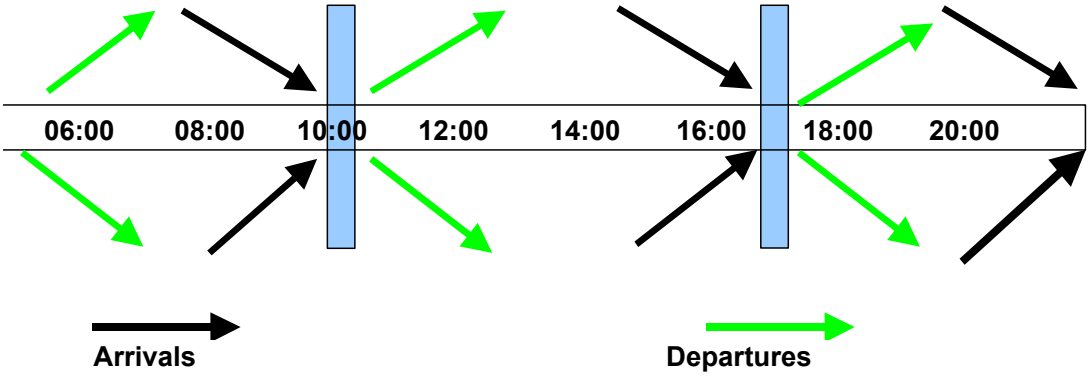
The term "Hub Airport" is perhaps the most abused in the aviation dictionary. It is frequently hijacked to describe an airport, which can more simply be described as busy. A true hub airport is a much more refined and sophisticated operation. The concept is basically mathematical in its nature. The most efficient way of linking a number of remote points on a network ("spokes") is by a one-stop connection via a central point (the "hub"). This translates very simply into an airline/airport environment whereby the most cost-effective way of linking a number of dispersed cities is by using flights to a central hub airport. This approach takes into account the fact that in practice there is usually insufficient demand to link profitably every conceivable city to another city.



This practice has now been heavily adopted by most of the world's airlines. Hub airports have carefully co-ordinated flows of arriving and departing flights (often referred to as "waves" or "banks") that create large volumes of passengers who are connected to other flights on the network as well as 'local' passengers simply flying from the spoke city to the central hub. Most short haul hub airports operate on the basis of "away based" aircraft. In simple terms, this refers to the overnighting of a fleet of the airline's aircraft away from the airline's home base. The main advantage of this type of operation is that it maximises connecting opportunities early in the morning and late in the evening, which is highly attractive for business traffic.



The previous diagram illustrates a typical European hub operation with co-ordinated waves of arrivals and departures at 08:00, 13:00 and 18:00, all of which are highly attractive to the market place. The sector length or journey time between cities is obviously a critical component in any hub operation. If the average sector length between the main hub and spoke cities is relatively short, it is still possible to create a marketable hub without the expense of night stopping aircraft away from the main hub.



The above scheme involves early morning departures from the hub airport and the first main connecting bank of arrivals at around 10.00 am (much less attractive than a connecting bank at 8.00 am to time sensitive business passengers). Hubs which have particularly long sector lengths (2 hours+) may only have one or two connecting banks per day.

Factors Needed to Create a Successful Hub

Aero-political Commitment to Deregulated Markets - It is extremely difficult to create an effective hub in an environment of restrictive bilateral agreements; this is available in the UK certainly in terms of European markets and access from regional airports to the USA.

Abundant Runway Capacity - Major world hub airports invariably have runway capacity in excess of 75 ATMs per hour in order to accommodate the intense nature of hubbing operations with a high and unbalanced volume of arrivals and departures – this is why Manchester would need to be able to operate its existing runways in mixed mode. A number of small niche hubs manage to support a network of scheduled services to 20-30 cities from a single runway. In this case the airport must rely on expedited ATC procedures to achieve movement rates of 35-40 ATMs per hour.

Competitive Minimum Connection Times (MCTs) - MCTs are published standards, approved by IATA and the airline community, applicable to transfer traffic in any given airport. In practical terms, they actually form an essential marketing tool in the war between competing hub airports for transfer traffic. Airline Computer Reservations Systems (CRS) display seat availability for flights according to a variety of criteria, the most critical of which is elapsed journey time. Therefore, the amount of the time spent on the ground at the hub airport is critical. Some airports offer MCT's as low as 25 minutes, thus ensuring a priority position in CRS displays for connections via that airport. Research has indicated that over 50% of reservations are made from the first three displayed flights in any CRS; this makes the occupation of one of these positions essential from a CRS perspective.

To achieve a good MCT an airport requires:

- A terminal configuration that is transfer 'friendly'.
- Baggage sorting systems, which are flexible enough to efficiently cope with, transfer baggage (usually the weak point of any hub).
- Supportive apron configuration - ideally with pre-reserved stands and minimal bussing operations to remote stands which increase processing times.
- A competitive ground handling environment which delivers competitive pricing and a commitment to quality (usually by the implementation of a 'self-handling' contract to the hub champion).

Substantial 'Local' Traffic With Significant Proportion of High Yield Passengers - the economics of European operations will not support as high a proportion of connecting traffic as that found generally in the US. As a rule of thumb, at least 60% of traffic on any intra-European service needs to be local rather than connecting. The hub airport itself therefore needs to be at the centre of a substantial and economically active catchment area. The North West region, when taken alongside the West Midlands and West and South Yorkshire certainly provide this.

A Hub "Champion" - Before the development of the powerful global alliances that now dominate the airline industry, airlines were often happy to make commercial agreements between themselves and a wide number of other carriers. These interline agreements meant that an airport could begin to develop a hub using a wide variety of feeding airlines; the main challenge was to synchronize the various schedules to ensure that marketable connections could be created. This is a development strategy that is now denied to most airports. The cementation of the alliance process means that the hub opportunity must be grasped by a single airline, or an alliance with a number of mutually committed airlines. BA/One World and bmi/STAR Alliance, both potentially could become a hub champion for Manchester.

Geographic Position - The geographic location of certain cities gives them a natural hub position. Manchester is located under the "Great Circle" routes linking Northern Europe to North America and is thus well placed to act as a connecting location for connecting large numbers of smaller markets to long haul flights. London is similarly a natural distributor of North American traffic to Europe.

ATC Environment - Schedule integrity is a key focus for a hub airport. The ATC environment in Northern Europe particularly is generating an unacceptable level of delay at major airports. The reliance on connecting passenger flows means that carriers often try to accommodate delayed passengers from other flights, in itself creating further delays. A delay-free ATC environment is now a major marketing advantage for any aspiring hub airport. The additional capacity provided by its second runway affords Manchester the potential to reduce average peak period delays to attractive levels; further development of the Manchester TMA will be needed, but there are no inherent problems that would prevent this.

Economic Growth - The development of air traffic has been shown to be indisputably linked to increases in regional/national GDP levels and air fares. Traditionally, growth markets are driven by healthy GDP growth. The North West's economy is less buoyant than that in the South East, but it is strong in regional terms and should be able to offer the kind of long term growth needed to provide the kind of demand needed to sustain a hub operation.