FlyerTech's Airworthiness Management Services

For Aircraft Operators

Preamble

About FlyerTech

FlyerTech Limited is an independent Airline Technical Services Department. We are able to offer the full range of services that should be expected of any contemporary Airline Technical Services Department whilst maintaining a low cost and removing the administrative and management burden from our customers. When an aircraft operator uses FlyerTech's services, FlyerTech provide the skilled staff, the accommodation, administrative resources and management processes leaving the operator free to do what they do best, operate the aircraft.

FlyerTech are a UK based organisation established in 2001 to fulfil a need for an independent organisation that can provide two key services:

1. To be an Independent Airline Technical Department, for customer airlines, that is separate from the maintenance provider.

2. To provide a Technical Services facility to Aircraft Lessors for use at Aircraft Pre-Purchase, Aircraft Delivery, Aircraft Handback and In Service Aircraft Technical Monitoring.

FlyerTech hold EASA Part M Subpart G, Continuing Airworthiness Management approval and we also hold EASA Part M Subpart I, Airworthiness Review Certificate privilege. FlyerTech perform full, ongoing Continuing Airworthiness Management services, including Airworthiness Review Certificate Issue and Extension for a variety of aircraft operators and a variety of aircraft types worldwide. These services have historically been performed by an airlines "in-house" Technical Department but for a number of reasons, our customers choose to contract FlyerTech to perform these functions.

FlyerTech are approved by the Civil Aviation Authority of the United Kingdom under the requirements of BCAR A8-8 to produce "E3" Technical Reports for use at aircraft import onto the UK Register of Aircraft and initial Certificate of Airworthiness issue.

FlyerTech are also approved by the Civil Aviation Authority of the United Kingdom under the requirements of BCAR A8-3 Supplement 2 to recommend the re-issue of Certificates of Airworthiness on UK registered aircraft.

In addition to our EASA and UK CAA Approvals, FlyerTech hold Continuing Airworthiness Management Approval issued by the Department of Civil Aviation Affairs of the Kingdom of Bahrain and the Bermudan equivalent of Continuing Airworthiness Management Approval (OTAR 39) from the Bermuda Department of Civil Aviation.

FlyerTech utilise a software based Maintenance & Engineering control system called FAME (FlyerTech Aircraft Maintenance & Engineering system). This software allows FlyerTech to review and track the maintenance status of aircraft throughout their operation. It also allows us to produce customised, branded documentation such as Maintenance Status reports, Airworthiness Directive Statements, Service Bulletin Statements, Hard Time Component Statements, Component Fit Lists, Maintenance Due Lists, Work Packs and many other reports.

Business Concept

The ability to control the implementation and execution of an aircraft's Maintenance Programme is a requirement that is incumbent upon all aircraft operators and is often referred to by regulatory authorities in Europe as Continuing Airworthiness Management. FlyerTech's Airworthiness Management Services fulfil the Maintenance Management requirements prescribed by the European Regulatory Authorities under the requirements of EASA Part 'M', Sub Part 'G'.

FlyerTech perform ongoing Continuing Airworthiness Management services for a variety of aircraft operators and a variety of aircraft types worldwide. Changes in airline management philosophy towards the low cost business model as well as changing regulatory requirements and technology have made it less desirable for airlines to develop and maintain their own Technical Departments and more attractive to outsource such services.

It is common for Maintenance Providers to perform Technical Management functions. However, it is often the case that these Maintenance Providers view the provision of Technical Management services as a secondary service that they supply to airlines to "lock in" the custom of the airlines, have greater influence over the maintenance activities which the airlines pay them for and view the Technical Management function as a "loss leader".

By separating the fleet's Technical Management function from the Maintenance function whilst still outsourcing both services, our customers are better able to benefit from competitive tendering of their fleet's heavy maintenance requirements and the large savings possible from such a process. It also guarantees a full openness of the technical status of their fleet.

FlyerTech's Airworthiness Management service levels surpass those currently available from maintenance organisations by providing a professional product, on time and with the benefit of the immediate availability of our combined industry experience gained from years of supporting the fleets of many aircraft in operations worldwide. FlyerTech's services enable our customers to remotely manage and monitor the technical performance of their fleet from both the reliability and cost point of view.

FlyerTech's Services

In order to provide an improved understanding of FlyerTech's full complement of Airworthiness Management services we have broken down our main capabilities into the following sections:

1. Continuing Airworthiness Management (CAM)
2. Airworthiness Review Certificate (ARC) Issue And / Or Extension
3. Aircraft Acquisition And Delivery
4. Handback (or Redelivery)
5. Service Delivery
6. Summary

A breakdown of each of these processes is offered below.

1 Continuing Airworthiness Management (CAM)

1.1 Continuing Airworthiness Management Services

Over the last 6 years FlyerTech has established itself as the European market leader in supplying independent Aircraft Continuing Airworthiness Management services broadly consisting of the following:

- The Total Aircraft Technical Administration
- Monitoring and Review of Airworthiness Directive Compliance on a Real Time Basis
- Monitoring and Review of Service Bulletin Compliance on a Real Time Basis
- Monitoring Damage Assessment and Repair Certification and ensure Damage Reports updated
- Monitor Hard Time Component Replacements
- Monitor Serialised Component Replacements
- The Production, Development, Amendment, Control, Administration and Implementation of an Approved Aircraft Maintenance Programme
- The Production of Aircraft Reliability Reports and the Chairing of Periodic Reliability Review Meetings
- The Production, Issue and Management of Line and Base Maintenance Work Packs and Task Cards in accordance with the Approved Maintenance Programme
- The Control of Out of Phase Maintenance Requirements in accordance with the Approved Maintenance Programme
- The Management, Maintenance and Safekeeping of Aircraft Technical Records
- The Scanning of Technical Records
- Hosting of Operators' Audits
- CAM for Aircraft in Storage - Monitoring Storage Program and Issue of Storage Work Packages

1.2 Full Continuing Airworthiness Management

Once an aircraft has been set up in accordance with the service discussed in paragraph 3.3 below under the heading “FAME Setup”, it is relatively straight forward for FlyerTech to provide Aircraft Operators with full Continuing Airworthiness Management services which facilitates the recording of all operations and maintenance events in accordance with EASA Part M Sup Part G requirements.

This service allows Aircraft Operators to ensure that their aircraft are managed in the best possible manner and also ensure that they have complete oversight with regard to each asset. In short, FlyerTech can take care of all of the Airworthiness Management requirements to allow Operators to rest assured that the highest standards of record keeping and maintenance planning are maintained and in compliance with the requirements of EASA Part M Sub Part G.

FlyerTech supply, or have supplied, Continuing Airworthiness Management Services to operators such as Rolls-Royce plc, Air Contractors, Astraeus, Flyglobespan and Zoom as well as service providers such as Avalon Aero Ltd and Avisa Safety Systems Ltd.

2 Airworthiness Review Certificate Issue And Extension

As part of our commitment to offer a comprehensive Airworthiness Management service to our customers and to keep pace with the changing regulatory environment, FlyerTech were the first independent Continuing Airworthiness Management organisation to be issued privileges under the requirements of EASA Part M Sub Part I, Airworthiness Review Certificates (ARC).

Our EASA Part M Sub Part I or ARC privilege allows us to deliver Airworthiness review services broadly consisting of the following:

- ARC Initial Issue
- ARC Extension
- Airworthiness Review of The Aircraft
- Airworthiness Review of the Compliment of Aircraft Technical Records
- Production of Airworthiness Review Report
- Report Submission to the Relevant Authority
- Liaison and Resolution Management with the Operator

2.1 EASA Requirements For The Issue Of An Airworthiness Review Certificate

EASA Part M requires that all aircraft have an Airworthiness Review Certificate (ARC) maintained at all times whilst the aircraft is operated within EASA's jurisdiction. Therefore, before an operator based within EASA's jurisdiction can operate an aircraft that has been imported into the EASA environment, the aircraft, together with the complement of technical records associated with the aircraft, must be subjected to the ARC process by an approved organisation such as FlyerTech. This will involve tracing the airworthiness compliance of the aircraft, together with the equipment installed on the aircraft, back to birth.

Once the full airworthiness review has been completed and it has been established that the aircraft complies with EASA's requirements, then an Airworthiness Review Certificate can be issued or recommended for the aircraft.

2.2 EASA Requirements For Maintaining The Airworthiness Review Certificate

For an ARC to remain valid the airworthiness of the aircraft has to be managed by an EASA Part M Sub Part G Approved Continuing Airworthiness Management organisation such as FlyerTech and it is required to have a review of the airworthiness of the aircraft performed periodically to validate the airworthiness status of the aircraft.

The scope of the airworthiness review required to renew an ARC is limited to a review of the aircraft records back as far as the last time that an ARC review was performed, providing that the aircraft has been continuously managed by an EASA Part M Sub Part G Approved Continuing Airworthiness Management organisation such as FlyerTech. If there is a lapse in the Continuing Airworthiness Management, in other words if the aircraft has for a period of time, since the last ARC was issued, not been managed by an EASA Part M Sub Part G Approved Continuing Airworthiness Management organisation such as FlyerTech, then a full review of the airworthiness will be required which will involve tracing the airworthiness compliance of the aircraft, together with the equipment installed on the aircraft, back to birth.

3 Aircraft Acquisition And Delivery

From time to time operators need to select and take delivery of new and used aircraft into their fleets either to satisfy the demands of expansion or to maintain fleet sizes by replacing aircraft that have been disposed of. During these aircraft delivery projects operators experience a significant peak in demand for experienced Technical Services Engineers to assist them with the selection and delivery of the aircraft. Such a peak in demand can be extremely difficult for an operator to bear.

FlyerTech are able to assist our customers when taking delivery of aircraft by providing the following services:

3.1 Aircraft Selection

At the time of selecting an aircraft to operate, aircraft operators are often overwhelmed by marketing information from Aircraft Lessors and their agents. Often, the most important maintenance status information and data is the hardest to obtain and clarify.

FlyerTech are able to assist in this area by performing a full airworthiness review of the aircraft and the complement of technical records that are associated with the aircraft. We offer a variety of services ranging from a simple desktop review of summary data to performing a full and in-depth airworthiness review process. Of course, it stands to reason that the more in-depth and comprehensive that the review process is prior to selection, the less likely it is that mistakes will be made when selecting the right aircraft for your fleet.

3.2 Pre-Delivery Inspection

Once an operator has selected an aircraft, FlyerTech recommends that, as a matter of course, between three and six months prior to delivery, FlyerTech send an appropriately experienced and skilled Engineer to perform a review of the Aircraft together with a review of the Technical Records associated with the Aircraft. Such a review should be performed to the standards of the UK CAA E3 Reviews (to be superseded by an ARC Review). If, however, an in-depth review has been performed prior to aircraft selection, then another review will not be required.

Following the review our Engineer will produce a detailed report which offers an insight into the compliance status of the Aircraft with lease return conditions, airworthiness requirements and general airline standards. This report will also offer a summary which can be used to identify any shortfalls and discuss and plan remedial action.

3.3 FAME Setup

In anticipation of managing the airworthiness of the aircraft, FlyerTech are able to setup aircraft within FlyerTech's Aircraft Maintenance & Engineering System (FAME). Operators are then able to interrogate the maintenance status of the aircraft utilising FAME on-line via the internet which allows for the local printing of various reports and other documentation relating to the aircraft. It is also possible to forecast what work is required to be performed on an aircraft by simply altering the Due List Horizon or the utilisation of the aircraft. This can enable Operators to simply and effectively plan for Lease Transition Maintenance requirements. In other words, to ascertain precisely what work is required to be performed on the aircraft to ensure that the aircraft complies with delivery conditions. The Setting Up of Aircraft on FAME could immediately follow the Pre-Delivery Inspection and could be accomplished using the information secured during the Inspection.

Aircraft Operators have in the past expressed a preference for FlyerTech to assure themselves that all airworthiness data is validated back to last performed or back to birth in certain areas as appropriate. It is FlyerTech's view that in order to achieve the standards required to ensure that the highest level of quality are met, "last performed" data will be traced back to birth on all Airworthiness Directives, Repairs Certification, Hard Time Components and Life Limited Parts prior to setting an aircraft up in FAME.

3.4 Delivery Planning

Assuming that the aircraft has been setup in FAME, FlyerTech will be able to produce a Workscope to reflect the Operator's perspective of what work will be required to bring aircraft into compliance with Lease Delivery Conditions.

Further to the production of the Pre-Delivery Inspection Report, a list of open issues will be prepared for discussion.

FlyerTech recommend discussions with the Lessor at this stage to plan the Delivery programme including planning the Workscope.

3.5 During Delivery

Taking into account the findings of the Pre-Delivery Inspection and also taking into account the consequential list of open issues, during delivery FlyerTech will perform an on-site review of the aircraft records for final compliance with Lease Delivery Conditions and Airworthiness Regulatory Requirements. The findings of the Pre-Delivery Inspection will be used to steer FlyerTech's representatives through this process, however, diligence will also be exercised to ensure that any changes to the condition or content of the records will be picked up if any have been affected since the Pre-Delivery Inspection was performed and to close out all discrepancies raised.

Following the on-site review, FlyerTech will produce a control document listing all of the non-compliances (areas where the aircraft has not met the delivery conditions of the lease agreement or fails to meet airworthiness requirements). Such a document can be used to manage the delivery process and will enable all parties to track the progress of remedial action with respect to these items. FlyerTech will then, if required, participate in meetings with the Lessor to discuss the progress of remedial action and monitor plans to address any shortfalls.

3.6 Aircraft Delivery And Introduction Into Revenue Service

As the delivery maintenance is completed, FlyerTech will update FAME, closing work packs and changing components within FAME as required. Updated reports produced from FAME will then be filed within the aircraft ship-set of records to keep the hard copy records current in preparation for the final delivery of the aircraft and the introduction of the aircraft into revenue service.

4 Handback (or Redelivery)

In common with aircraft delivery activities referred to above, from time to time operators need to dispose of aircraft from their fleets. It is normally the case that these aircraft are sold or handed back to the Aircraft Lessor. During these aircraft handback projects operators once again experience a significant peak in demand for experienced Technical Services Engineers to assist them with the handback of the aircraft. Such a peak in demand can be extremely difficult for an operator to bear.

FlyerTech are able to assist our customers when handing back aircraft by providing the following services:

4.1 Transition Maintenance

FlyerTech are able to review the lease handback conditions and assist the operator in ensuring that the aircraft will comply with these conditions. In those areas where shortfalls are identified, FlyerTech can work with the operator to find an acceptable technical or commercial solution. Once this process is complete FlyerTech are able to produce a "Lease Handback Work Pack" to control the pre-handback or Transition Maintenance.

Once the Transition Maintenance Work Pack is agreed FlyerTech can provide an on-site representative to assist the operator throughout the handback process.

4.2 Liaison and Progress Chasing

FlyerTech's on-site representative will participate in on-site pre-handback meetings with the Lessor as required to discuss the progress of the pre-handback work pack and any other points as they arise. These meetings can also be used to liaise with the Lessor with respect to tracking the progress of any open issues that the Lessor may have raised in their pre-handback records auditing process.

FlyerTech will assist with the application for Certificates of Airworthiness (C of A) and for Export C of A's as required.

4.3 Records Updating

FlyerTech will ensure the timely updating of the Aircraft Records and FAME (if required) with follow-up from Pre-Handback Maintenance as it is closed down by the appointed Maintenance Organisation. This will help to ensure that at the time of the handback of the aircraft, the compliment of aircraft records precisely reflect the current status of the aircraft.

Following on from the preparation of the records above, FlyerTech will perform the final preparation of the Aircraft Records to comply with Lease Handback Requirements.

As the pre-handback maintenance work is completed, FAME will be updated and FlyerTech will be able to produce and certify Airworthiness Directive Statements, Hard Time Component Statements, Service Bulletin Statements, Maintenance Programme Status Reports, Component Fit Lists and any other handback documents that may be required to be produced from FAME.

4.4 Technical Support

FlyerTech's on-site representative will be available throughout the handback to provide "On-Site" Technical Support to deal with any last minute issues in relation to the aircraft records, to make any required last minute changes to the records and to generally liaise with all parties and assist during the final stages of the handback of the Aircraft.

5 Service Delivery

Because FlyerTech already have an existing infrastructure in place to provide Continuing Airworthiness Management services to Aircraft Operators in addition to our existing and growing infrastructure that we have in place to provide Asset Health Monitoring services and Lease management services to Aircraft Lessors, we already have the systems, processes, procedures and man power to deliver the services to Aircraft Operators today.

6 Summary

As discussed above, FlyerTech propose to supply Aircraft Operators with Airworthiness Services to assist in managing Operators Aircraft.

FlyerTech would not require any introductory grace period. Because FlyerTech have an existing infrastructure in place to provide Continuing Airworthiness Management Services, we already have the systems, processes, procedures and manpower to deliver the services to Aircraft Operators today.

In short,

- We can tailor our services
- We have the systems in place
- We have the staff in place
- We are ready to roll