FINAL

Notes of Stapleford Airspace Change Framework Briefing with CAA

02 Feb 2017

1 Purpose of meeting

The Stapleford CAP 1122 Preliminary Review & ACP Framework Briefing between Stapleford Aerodrome, AOPA, Helios and the CAA was held on 2nd February 2017 at CAA House in London.

Although the ACP Framework Briefing and the CAP1122 Preliminary Review meetings have different objectives, a combined meeting was convened for staffing efficiencies for both CAA and Project GAGA. These notes relate to the elements of the meeting related to the Airspace Change Proposal for the introduction of the GNSS IAPs at Stapleford.

With regards to aerodrome infrastructure and ATS limitations, IAPs at Stapleford requires agreed mitigations for having visual runways, no aerodrome or approach air traffic services and limited MET services, these elements were discussed and reported in the Notes of the CAP 1122 Preliminary Review.

The meeting participants were:

- CAA [redacted]

Apologies received from [redacted]

- Stapleford [redacted]
- AOPA [redacted]
- Helios [redacted]

2 Introduction

The meeting started with a welcome from CAA and introductions from all attendees.

The CAA were advised that the implementation of LNAV and LPV GNSS Instrument Approach Procedures at Stapleford Aerodrome is part of an AOPA managed LPV implementation project that is part funded by the European GNSS Agency (GSA). The project is titled "GNSS Approaches for General Aviation", with the Short name of "Project GAGA" that will also implement LPV procedures at Haverfordwest and Gloucestershire that will be the subject of separate meetings with CAA.

3 Traffic Summary

A brief summary of the traffic at Stapleford Aerodrome was provided, noting that there were over 40,000 movements in 2016 with roughly an 80/20% split between runways 21 and 03. It is estimated that currently less than 5% of aircraft are equipped with either LNAV or LPV GNSS instrument approach capability.

In terms of training hours by Stapleford Flight Centre, approximately 13,500 hours in total took place in 2016 of which 2,000 hours related to Instrument training.

Typical aircraft types and number of aircraft (both SFC and private) were also given.

4 Proposed Instrument Approach Procedures

The proposed IAP changes were outlined for Stapleford Airport along with concept of operations. LNAV and LPV procedures to 03R and 21L were proposed and the project highlighted that a runway aligned approach to 03 may not be possible due to the close proximity of Controlled Airspace.

The Project briefed on the existence of unapproved training Non-Precision Approaches based on the LAM VOR/DME and stated the desire for the RNAV IAPs to replicate as closely as possible the ground tracks of the training IAPs.

The APAPI for runways 03 and 21 are currently set at 4.5° and 4.25° respectively. CAA expressed the view that the IAPs should be designed with a Vertical Path Angle in the normal 3° to 3.5° range if permitted by the obstacle environment.

It was noted that a telecommunications mast is the dominant obstacle on the 03 approach and that the mast is proposed to be removed.

CAA enquired if an up-to-date obstacle survey was available; Stapleford informed that the last survey was conducted approximately 3 years ago. The project recognise that the Obstacle Survey is the first activity to be completed to commence the implementation of the RNAV IAPs.

Action #1 Project GAGA to arrange for an updated obstacle survey to be conducted at Stapleford Aerodrome.

CAA enquired if an Approved Procedure Designer (APD) had been engaged by the project. The project manager advised that it was planned that an APD would be selected by a tender process to undertake the IAP designs for the three airports within Project GAGA and would advise the CAA of the APD for Stapleford.

Action #2 Project GAGA to engage an APD for the design of the Stapleford RNAV (GNSS) IAPs and advise CAA.

5 Operational and Environmental Aims

[redacted] provided background and justification for introducing GNSS IAPs at Stapleford Aerodrome to runways 21L and potentially 03 R.

The potential options were presented as:

- Do Nothing,
- implement NDB approaches
- implement RNAV approaches.

Implementation of RNAV Approaches is the preferred option as it would meet the stated objectives, provide higher levels of safety and stimulate PBN equipage of general aviation aircraft. Noting that increased GA PBN equipage is of significant benefit in a rationalised VOR navigation environment.

The main objectives of the IAPs being to:

- Increase safety of the aerodrome operation,
- improve operational efficiency, allowing recovery of Stapleford Flight Centre aircraft in deteriorating weather conditions

- Allow continuation of IFR training by providing RNAV IAPs following the planned withdrawal of the Lambourne (LAM) en-route VOR by NATS, which currently supports VOR/DME Training Non-Precision Approaches to runways 21 and 03.

It was noted that the RNAV IAPs are not intended to increase the number of aircraft movements, extend airport operating hours or to increase the size of aircraft.

There was discussion on the objectives especially from an environmental point considering the future level of use of IAPs. The CAA asked if there is scope for expansion such that there would be an increase in the number of movements.

The project stated that the majority (estimated 95%) of aircraft are currently not equipped to use the RNAV approaches and although the availability of the approaches may stimulate GA PBN equipage, the numbers of aircraft conducting an RNAV approach at Stapleford Aerodrome are not expected to increase significantly over the use of the training procedures. Pilot qualification in IMC and the constraint of clearing the visual circuit traffic when the IAPs are in use in VMC will have an adverse economic impact.

The CAA requested an estimation of the potential numbers of aircraft that may participate in the new RNAV Instrument Approaches.

Action #3 Project GAGA to provide a considered estimate of the potential numbers of aircraft that may participate in the nee RNAV Instrument Approaches.

[redacted] highlighted that the key drivers for IAPs is improved safety and training rather than increasing the number of operational movements to which Stapleford concurred. The CAA emphasised that Stapleford need to identify who will be impacted, how they will be impacted and that their feedback needs to be garnered.

Action #4 Project GAGA to provide draft RNAV (GNSS) IAP Designs to allow determination of impacted properties.

6 Noise complaints & Impact assessment

Typical ground tracks of SFC aircraft in Jan 2017 were provided to give an idea of airspace usage in relation to nearby Controlled Airspace constraints such as London City CTR and the Stansted and Southend CTAs.

CAA observed that an RNAV approach will be significantly different to the current tracks with the area overflown being more focussed and the approach starting at a greater distance along the runway centreline thereby increasing the population potentially impacted by the change.

An indication of the location of noise complaints was presented with there being almost no complaints associated with arrivals to either runway.

Historically there were a significant number of noise complaints but since the implementation of noise abatement procedures, noise complaints are a rare occurrence although occasional complaints arise when aircraft climb out at high power settings.

In addition to potential aircraft noise, the initial impact assessment on Airspace Users and the environment was proposed. By establishing an IAP in Class G airspace, it was noted that new,

repeatable ground tracks will be designed that minimise over-flight of noise sensitive areas and remain clear/below controlled airspace.

7 Consultation

The Project identified the Key stakeholders as being Essex County and Epping District councils, for runway 21. If it is possible to implement an IAP into runway 03 the IAP design may extend into the Redbridge and Brentwood District Councils areas of Responsibility.

The project proposed that the aviation consultees were identified as being NATMAC and adjacent aerodrome operators.

A 12-week environmental consultation was proposed starting in Q2 2017 followed by a 16 week CAA determination period. Target implementation for vertical profiles was estimated to be Q4 2018.

The delay in concluding the Stapleford CAP 1122 Preliminary Review will delay these timescales.

8 Conclusion

The conclusion of the ACP Framework briefing was that it was too early in the Project lifecycle to assess the impact of the proposed RNAV (GNSS) Instrument Approach Procedures to determine the appropriate level of consultation.

Following feedback from CAA on the CAP 1122 Preliminary Review, the Project will:

- progress conceptual procedure designs to establish the areas to be overflown,
- provide a considered estimate of the increased participation in the RNAV (GNSS) Instrument Approaches.

9 Summary of meeting actions

Reference	Action	By Who
Action #1	Project GAGA to arrange for an updated obstacle survey to be conducted at Stapleford Aerodrome.	Project Manager
Action #2	Project GAGA to engage an APD for the design of the Stapleford RNAV (GNSS) IAPs and advise CAA.	Project Manager
Action #3	Project GAGA to provide a considered estimate of the potential numbers of aircraft that may participate in the new RNAV Instrument Approaches.	Project Manager
Action #4	Project GAGA to provide draft RNAV (GNSS) IAP Designs to allow determination of impacted properties.	Project Manager

[redacted] Project Manager