Airspace Change Proposal by Stapleford Aerodrome

Consultation Document
Foreword

We are very proud of our relationship with the local community and stakeholders, and are committed to being a responsible neighbour. The purpose of this document is to ensure you have an opportunity to participate in this important consultation about the proposed introduction of new instrument approach procedures at Stapleford Aerodrome. These procedures will provide satellite guidance to approach runway 21L, increasing safety in deteriorating visibility weather conditions but will also have a small effect on the path that aircraft on the proposed approach will follow compared to today as aircraft will follow a defined path over the ground that moves the distribution of aircraft.

The implementation of these procedures is part of a global programme that aims to improve aviation safety. In July 2016, Stapleford Aerodrome became part of a European project co-funded by the European GNSS Agency. The objective of the project is to foster the design, development and implementation of satellite based instrument approach procedures, at three small aerodromes in the UK. The project is being co-ordinated in the UK by the Aircraft Owners and Pilots Association (AOPA) and aviation consultancy Helios in partnership with Stapleford Aerodrome.

Based on 2016 data, 6% of aircraft, approximately 700 flights per year, are expected to be able to use these satellite guided procedures if required, rather than the visual approach. These figures include a small margin for growth of training and business flights that will benefit the economy of the region.

The proposed procedures will not influence the number of aircraft that will continue to operate visually into the aerodrome.

We have explained in detail what this document is about and what we are consulting on further on in this document. Your opinions regarding the proposals set out within this document and your general feedback are very important to us, and we encourage you to respond, whether you have positive or negative views on the proposal.

The stakeholder consultation runs from 18th December 2017 to 26th March 2018 and details of how to respond have been outlined in section 7.4.

Mr John Chicken

Manging Director Herts and Essex Aero Club
Executive summary

Objective of this document

Stapleford Aerodrome wishes to introduce a more accurate, safer and predictable approach procedure for aircraft approaching runway 21L in reduced visibility conditions. The procedures are formally known as RNAV Global Navigation Satellite System (GNSS) Instrument Approach. Within this document they are referred to as instrument approaches.

This document describes in detail the proposed changes we would like to introduce and invites you, the stakeholders, to review and provide feedback on our proposal. We look forward to understanding your views and value your opinion.

Purpose of this change

This proposal is to implement instrument approaches to runway 21L at Stapleford for general aviation and small commercial aircraft and helicopters. An aerodrome layout has been provided in Figure 1.

If our proposal is approved, the implementation of the instrument approach will allow approaches to the aerodrome when the weather is poor (e.g. low cloud base or visibility) and improve the safety of operations during deteriorating weather conditions. Currently, there is no approved Instrument approach to Stapleford and aircraft intending to land at the aerodrome have to divert to another aerodrome if they are unable to see the runway.

Stapleford Flight Centre (SFC) currently provides instrument training using a 'good weather' training procedure based the Lambourne (LAM) VHF Omni Directional Radio Range (VOR) that is scheduled to be withdrawn within the next two years. The proposed instrument approach will allow SFC to continue local instrument approach training following the withdrawal of the LAM VOR. Without any facility to support instrument approach training at Stapleford, such as the VOR or the proposed procedure, all instrument approach training would have to be conducted at an alternative airport increasing costs.

The introduction of the instrument approaches at Stapleford Aerodrome is also aligned with international and UK safety objectives related to performance-based navigation1 and the UK Future Airspace Strategy.

Why is the aerodrome consulting?

The Aviation Regulator, The Civil Aviation Authority (CAA) requires an Airspace Change Proposal (ACP) to be carried out wherever there is a change to the airspace status, or change to procedures. This process is described in the UK CAA Publication (CAP) 725.

As sponsor of the change SFC is responsible for consultation with airspace and airport users, other organisations and the public who may be affected directly or indirectly by the change. This document has been written to facilitate our consultation as we seek input on our proposals and engagement with all consultees affected by the change. The results of this consultation will be used to help define our next steps in the proposal. All consultation responses and comments will be part of any document submission to the CAA post consultation.

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1 Performance-based navigation is a comprised of standards and systems which enable better navigation performance for aircraft and enable many future aviation concepts which improve aviation performance.
Scope of the consultation

The scope of the consultation is to address the impacts associated with the implementation of the instrument approach procedures at Stapleford Aerodrome. This includes comments on the new procedures that relate to the following:

- Improved operational efficiency at the aerodrome allowing the recovery of Stapleford flight centre aircraft in deteriorating weather conditions.
- Increased safety in deteriorating weather conditions by providing satellite-guided approaches to runway 21L.
- Enabling Stapleford flight centre to continue to undertake instrument flight training at the airport.
- Increased aircraft operations from training or as a result of enabling operations in weather conditions which would not be enabled today.
- The routing or height of the new instrument approach procedures.

The consultation is specifically not addressing any of the following as these are unrelated to, and unchanged by, the introduction of the new procedures:

- The routing or height of departing aircraft;
- The routing or height of existing visual approaches;
- Aerodrome operating hours or the Aerodrome Traffic Zone;
- Aircraft approaches to any other runway;
- Existing number of aircraft movements;
- Type of aircraft operating at the aerodrome;
- Changes to any existing noise abatement procedures;
- Changes to any airspace around the aerodrome;
- Noise related to procedures excluding instrument approaches.

Engagement of the UK Civil Aviation Authority

The decision to approve (or not approve) the proposal will be taken by the Civil Aviation Authority (CAA), the civil aviation regulator. Stapleford Aerodrome will be required to justify the proposal sufficiently to the CAA to gain permission to implement the new procedure, following the completion of this consultation and a review of the procedure designs.

On 2nd February 2017, Stapleford Aerodrome engaged with the CAA to discuss the viability of the proposal and formally commenced the Airspace Change Proposal with a Framework Briefing at CAA London. Stapleford Aerodrome and the CAA have agreed, the consultation period will be 14 weeks, commencing on 18th December 2017.
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1 Introduction

Stapleford Aerodrome plans to implement a new satellite-based instrument approach procedure to allow aircraft to land in weather conditions not currently supported by the existing procedures. As required by UK CAA Publication (CAP) 725, this requires an Airspace Change Proposal (ACP) to be carried out. SFC, as the Change Sponsor, is responsible for conducting the consultation process for the proposal. This consultation document will be made available through a number of channels (described in section 7.4) and can be accessed via http://bit.ly/2ywaSLj.

The aerodrome has received a grant from the European GNSS Agency to support the implementation and has engaged with the Aircraft Owners and Pilots Association (AOPA) and aviation consultancy Helios to facilitate and manage this airspace change proposal on their behalf. In developing the proposal, a number of options were considered by the aerodrome. To meet the aerodrome’s safety requirements and objectives the preferred option is to implement satellite-based instrument approaches to runway 21L.

This consultation document aims to engage the views of interested stakeholders that may be affected by the implementation of this proposal. Appendix E contains a list of identified consultees, but should not be assumed to be exhaustive. All consultees2 are encouraged to review this document and submit a response by post or email to the SFC, as detailed in section 7.4.

A certain amount of technical detail about the proposed instrument approach has been included in this consultation document as it is important for stakeholders to have the necessary facts to form an opinion. This has been placed in appendices to this document to aid readability; for the main body of this document we have map-based images to indicate the existing and proposed flight paths.

Organisation of the document

Chapter 1 (this chapter) introduces this airspace change proposal document
Chapter 2 provides a brief overview to the current operations at Stapleford Aerodrome
Chapter 3 explains the key objectives for change at Stapleford Aerodrome
Chapter 4 evaluates three potential options to fulfil the Aerodrome’s objectives.
Chapter 5 discusses the potential environmental impacts to Stapleford Aerodrome and the surrounding airspace
Chapter 6 discusses the impact of the proposal to residents living nearby the proposed instrument approach route
Chapter 7 discusses the consultation process including the planned timeframes and how to respond to this consultation along with next steps
Chapter 8 provides a template for the consultation feedback form

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2 Please note that in the context of this document a consultee is taken to be anyone that could be affected positively or negatively by the proposals contained herein.
Appendix A providing a list of key technical terms and definitions used in this document.

Appendix B provides a picture of the Stapleford Aerodrome ATZ

Appendix C provides pictures of aircraft expected to be capable flying the proposed approach procedure

Appendix D provides the draft technical charts used by pilots (Instrument Approach Plates) flying the proposed approach procedure

Appendix E provides a list of aviation and non-aviation stakeholder consultees to whom this document is of particular relevance
2 About Stapleford Operations

This section describes current operations at Stapleford Aerodrome. This includes an overview of the current traffic levels and existing flight paths flown.

2.1 Context

Stapleford Aerodrome is a general aviation airfield near the village of Abridge, in the County of Essex. The licensed aerodrome is operated by Stapleford Flight Centre and owned by Herts & Essex Aero Club Limited.

Stapleford Aerodrome is located within uncontrolled airspace and therefore pilots may fly when and where they like, subject to a set of simple rules. In this airspace, pilots are responsible for their separation from terrain and other aircraft.

The Aerodrome is surrounded by a cylindrical volume of airspace of 2 Nautical Miles (NM) in radius and to a height of 2000’ above the aerodrome, known as the Aerodrome Traffic Zone (ATZ). The purpose of the ATZ is to protect traffic on and in the immediate vicinity of the aerodrome. The location of the ATZ is shown in Appendix B.

Within the ATZ an Air/Ground Radio operator is able to pass advisory information to pilots regarding the situation local to the aerodrome. This means the operator is unable to provide control instructions (which pilots are compelled to follow) and can provide advisory information only.

All aircraft currently arriving into Stapleford Aerodrome do so visually, under Visual Flight Rules (VFR). Such arrivals are commonly referred to as visual approaches. Visual approaches are operated in weather conditions generally clear enough to allow the pilot to see where the aircraft is going with visual reference to the ground (e.g. landmarks), and by visually avoiding obstructions and other aircraft. It is only permitted to fly under VFR when these outside references can be clearly seen from a sufficient distance; when flying through or above clouds, or in fog, rain, smoke or similar conditions, these references can be obscured. Thus, cloud ceiling (the height of the cloud’s base) and visibility are important for safe operations during all phases of flight at Stapleford.

When operation of an aircraft under VFR is not possible (because the visual cues outside the aircraft are obscured by such poor weather conditions) Instrument Flight Rules (IFR) must be used instead. Under IFR, aircraft are flown using instruments on-board to aid navigation, using radio beacons or satellite signals as reference, thereby supporting the safe operations of the aircraft. Arrivals under such conditions are commonly referred to as instrument approaches. To fly these approaches, pilots must have the required license and operate a suitably instrument equipped and certified aircraft. This proposal is consulting to implement an instrument approach procedure to Stapleford Aerodrome (described in later sections).
2.2 Runway Configuration

Stapleford Aerodrome has 2 runways orientated approximately north-south as shown in Figure 1. Runway 03 R and 21L (1077 m long) is asphalt and grass and the smaller runway 03 L and 21 R (1095 m) is only grass. **Note, the focus of this consultation is instrument approach to runway 21L only.**

For aircraft performance reasons\(^3\) aircraft have to take off and land into wind. Runway selection is therefore primarily governed by the wind direction at the airfield. In the UK westerly winds prevail around 70% of the time and easterly winds around 30%.

The wind-preferential runways at Stapleford Aerodrome are 21Left (asphalt) and 21 Right (grass) as they are headwinds runways. Total aircraft movements for 2016 was approximately 40,000, of which approximately 80% landed on, or departed from runway 21L and around 20% landed on, or departed from runway 03R.

2.3 Stapleford Aerodrome operations

Stapleford is classed as a general aviation aerodrome with no scheduled commercial services. The aerodrome’s primary business is training, but it is also used by a variety of other aircraft operators such as General Aviation, Helicopter and Commercial.

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\(^3\) An aircraft flying into wind has a higher air speed (and thus more lift) than an aircraft flying with the wind, when both have the same ground speed.
The total number of movements at the airport was 40,000 in 2016, of which 35,000 movements were operated by SFC. Approximately 80% of flights utilised runway 21L, which represents 32,000 movements.

Note, one movement is counted as an arrival or departure to or from the airfield.

The following figures present IFR aircraft arrivals to and departures from Stapleford between October 2016 and September 2017\(^4\). The figures shown are for all navigation capabilities carried by the aircraft. Only those correlating to categories S or B would be able to use the proposed procedure. About 6.6% of arriving IFR aircraft were equipped for the basic version of the proposed approach procedure (S), whilst the proportion equipped for the advanced approach procedure (B) is 2.4%. For departures, this was 6.9% and 1.0% respectively.

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\(^4\) Extracted from the Eurocontrol PRISME Flight Plan Database (http://www.eurocontrol.int)
We assume that after the instrument approach is introduced aircraft capability will evolve with time and arrivals and departures equipage will be comparable in number. Aircraft capability to use the procedure is expected to evolve within five years to about 700 potential movements per year. This represents around 3% of all arrivals, which, on average, equates to 2 LPV arrivals per day. This assumption includes a margin for training and expected growth of IFR movements.

The number of IFR movements operated by SFC is expected to remain broadly the same, as this is driven by demand for pilot training rather than availability of specific type of instrument procedure.

It is also in the Aerodrome’s interest to ensure that visual approaches are unimpeded by the introduction of the new procedure given the primary business focus of the aerodrome on training during visual operations. All ab-initio training requires flight in visual conditions and this comprises the primary business of Stapleford Flight Centre.

Therefore, the balance between IFR and VFR operations are expected to be managed and total demand at the aerodrome is expected to remain the same.
2.4 Existing flight paths

Figure 4: Sample of aircraft flight tracks arriving and leaving Stapleford Aerodrome in 2017

Visual approaches are currently the only type of approaches into Stapleford Aerodrome. As all approaches to the Aerodrome are currently flown visually, aircraft can operate without restriction and, therefore, traffic patterns tend to be random with a concentration on a regularly flown loop known as the aerodrome circuit. Figure 4 visualises a sample of approaches to the Aerodrome demonstrating the random nature of flights outside the ATZ. This is because the visual tracks are interpreted by the pilot rather than navigation aids, such as satellites, and therefore there is a spread in the flight tracks.
3 Why the aerodrome is proposing a change

This section explains why Stapleford Aerodrome wishes to introduce the new instrument approach. Key objectives and drivers are discussed to justify the introduction of instrument approach.

3.1 Objectives of this proposal

The prime objectives for implementing the instrument approach procedures at Stapleford Aerodrome are the following:

• To improve operational efficiency at the aerodrome by allowing the recovery of Stapleford Flight Centre aircraft in deteriorating weather conditions (instead of diverting to other aerodromes).

• To allow Stapleford Flight Centre to continue Instrument Flight training at the airport when existing infrastructure is removed.

• To improve the safety of aerodrome approaches to runway 21L in deteriorating weather conditions.

3.2 Drivers for Change

Safety of Operations

Improving operational efficiency at the aerodrome by allowing the recovery of Stapleford Flight Centre aircraft in deteriorating weather conditions and enhancing the safety of aerodrome operation in deteriorating weather conditions, are the primary reasons why Stapleford is proposing to implement the instrument approach procedure.

An instrument approach is designed to ensure that aircraft flying the approach maintain safe clearance from obstacles such as terrain, radio masts, buildings, street lighting and vehicles on roads, all of which are features of the Stapleford approach.

An instrument approach with vertical guidance allows a pilot to fly the aircraft along a path that is aligned with the runway and is descending at the specified rate, without having visual contact with the runway. This is known as a stabilised approach.

An instrument approach may be flown to a minimum height known as the decision height by which point the pilot must decide if the runway is in view and a safe landing is possible. If the runway cannot be seen, the approach is terminated, and the missed approach procedure is executed.

At the decision height, the instrument approach will have correctly positioned the aircraft to the visual guidance provided by the aerodrome lighting and only minor adjustments to aircraft position are required in the final phase of the approach.

Approaches with vertical guidance are lower workload for the pilot as he/she is not continuously monitoring the descent rate and trying to ensure that the aircraft is at a particular altitude at a certain range. As it is easier to fly an approach there is less likelihood of having to change engine settings to maintain the glidepath reducing noise’ fuel burn and emissions.

Improving training opportunities

Stapleford Flight Centre specialises in commercial flight training. Current instrument operations training and recovery is based on the Lambourne (LAM) VHF Omni Directional Radio Range (VOR) – a short-range radio navigation system allowing aircraft to determine
its position. Without an approved and published instrument approach at the airport when
the LAM VOR is withdrawn from service in the next two years local IFR training will be
forced to stop. The introduction of this approach procedure will allow continuation of IFR
training. The new instrument approach may therefore also be used during good weather
for training pilots to fly instrument approach, when traffic permits – i.e. when limited VFR
circuit training is ongoing.

**Improved Operating Minima**

An instrument approach is designed to take account of obstacles and as the aircraft is
precisely positioned on the approach path, the decision height will be much lower than for
a visual approach. The instrument approach therefore allows operations to continue in
deteriorating weather conditions to a lower cloud base and reduced visibility.

**Economic viability**

Stapleford Aerodrome is utilising part funding provided by the European GNSS Agency
and future-proofing its business by implementing an instrument approach and therefore
enabling future cost saving opportunities.

The introduction of satellite-based instrument approach procedures can be implemented
with no financial outlay required on ground-based equipment and there are no associated
on-going operations and maintenance costs to the Aerodrome. By implementing the
instrument approach, Stapleford Aerodrome is optimising the operation for its current and
future customers by providing a safe and reliable procedure which can be used in poor
weather conditions rather than diverting to alternate airfields. Infrastructure costs are
already borne by the European Community, and thus implementing the procedure simply
extracts more value from existing assets.

**Modernisation**

Satellite-based approach procedures are being adopted worldwide due to requirement
“ICAO Resolution A37-11”. The UK intends to meet the aims of this requirement through
its Future Airspace Strategy (FAS). One of the key aims of FAS is to make airspace more
efficient by improving the accuracy of where aircraft fly by using satellite-based navigation
instead of ground-based navigation aids.

**Environmental Positives**

The proposed instrument approach procedures offer the opportunity for;

- More efficient flights as aircraft stay higher for longer.
- Fuels savings generated from reduced diversions and missed approaches in marginal
  visual conditions and therefore a reduction in CO2 emissions and reduced noise.
- Highly repeatable, more accurate and more predictable approach flight paths. This is
  further discussed in detail in the next section (section 4).

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5 [https://www.icao.int/Meetings/AMC/Assembly37/Documents/ProvisionalEdition/a37_res_prov_en.pdf](https://www.icao.int/Meetings/AMC/Assembly37/Documents/ProvisionalEdition/a37_res_prov_en.pdf)

6 [https://www.caa.co.uk/Commercial-industry/Airspace/Future-airspace-strategy/Future-airspace-strategy/](https://www.caa.co.uk/Commercial-industry/Airspace/Future-airspace-strategy/Future-airspace-strategy/)
4 The proposed options

This section outlines the three potential options considered to meet requirements and objectives by Stapleford Aerodrome, as outlined in section 3.

4.1 Option A – Implementation of instrument approach

Stapleford Aerodrome is proposing to introduce instrument approaches to runway 21L only which will be used in conjunction with the existing visual approaches. This option aligns with the objectives and drivers for change listed in section 3.1. This is the aerodrome’s preferred option.

The proposed instrument approach will involve aircraft using the Global Positioning System (GPS) to fly between waypoints that are programmed into the flight management computer on board the aircraft. They work on the same concept as a car “sat-nav”, but provide vertical as well as horizontal guidance. The satellite based Instrument approaches do not rely on ground based infrastructure.

The three main characteristics of this type of approach are:

1) The approach will be a “straight-in” instrument approach. In other words, the approach will follow an extended centre-line of the landing runway as compared to a proportion of visual approach that involve the aircraft positioning within the visual circuit. This ‘straight-in’ design is optimal for both flight operations and safety and is established preferred practice for instrument approaches, as set out in CAA policy. CAA document CAP 1122, Appendix 1, clearly states that approach designs should be kept as simple and standard as possible, e.g. whenever possible no off-set approaches (approaches to be kept to the centre line of the runway).

2) Aircraft will follow a set path over the ground, leading to greater consistency of flight paths.

3) The proposal will not require any ground based equipment to be installed and therefore there are no equipment maintenance schedules. Instrument approaches are designed to use data from satellites for accurate navigation.

Figure 5 defines the path (dark blue line) that aircraft using the instrument procedure will use when using the approach to runway 21L. This will lead to a more predictable and repeatable route for approach to the aerodrome when compared to the red lines which represent the path taken by aircraft approaching the aerodrome visually.

4.2 Option B – Do nothing

This option does not meet the Aerodrome’s requirements and objectives stated in section 3. Aircraft in deteriorating weather conditions will have to divert to other airports. Local instrument training capabilities will be lost threatening the viability of the airport, and thus harming the local economy.

4.3 Option C – Implement NDB/DME approach

Conventional ground based navigation aids such as Non-Directional Beacons (NDB) and Distance-Measuring Equipment (DME) may be used to provide instrument approach guidance. There is currently no NDB located at Stapleford and the provision of the facility would represent a considerable capital expenditure. There is a DME associated with the NATS en-route Lambourne VOR located adjacent to the aerodrome, however the long-
term availability of the DME following the withdrawal of the VOR is outside of the control of the aerodrome.

An NDB/DME Instrument approach does not provide vertical guidance to the pilot on approach and the NDB is liable to interference and interruptions in the signal due to thunderstorm activity making the guidance erratic.

Ground based navigation facilities require considerable investment with respect to maintenance and equipment replacement at end of their operational life. They are also not as accurate as the satellite-based instrument approach procedures. More importantly, the absence of vertical guidance does not provide a safety benefit to the operation.

This option has been considered and discounted as not meeting the aerodromes objectives. In addition, as NDB/DME approaches are being phased out within the aviation industry, the option does not feature in the consultation feedback form in section 8.

4.4 Mitigation included in the proposed design to minimise the impact

The design of the instrument approach has been performed within the Internationally agreed criteria published by ICAO. The design of the instrument approach proposed (Figure 12: Draft instrument approach procedure for runway 21) has been developed taking into consideration:

4) Minimise over-flight of built-up areas to the maximum extent.

5) Avoidance of the surrounding controlled airspace (London City CTR and the Stansted and Southend CTAs).

Figure 5: Proposed instrument approach to runway 21 L
5 Potential Environmental Impacts

This section evaluates the potential environmental impact of introducing the instrument approach at Stapleford Aerodrome.

5.1 Environmental Impacts

5.1.1 Noise

Stapleford Aerodrome do not expect a significant increase in the number of aircraft using the aerodrome and they do not expect a change in aircraft types using the approach, if the proposal is implemented. The expectation is that there may be an increase of two movements per day. The Aerodrome and its key aviation stakeholders conclude there will be an insignificant increase in noise from aircraft operations.

Given that the introduction of the instrument flight procedures will lead to a repeatable ground track over which aircraft will fly it is possible that there will be some increase in noise in some areas. However, the guidance afforded to aircraft through the instrument procedure is expected to result in aircraft flying higher (with less ground noise) than today. This is explained further in Section 6.

5.1.2 CO2 Emissions

Following engagement with the Aerodrome’s key aviation stakeholders, (i.e. pilots, airspace users and airport operations staff,) there is a consensus that the proposal will allow aircraft to fly an optimal approach with lower engine power settings.

The current approach onto runway 21L requires pilots to follow a visual approach into the aerodrome. Once the pilot has the airfield in sight, they will be required to make a turn to align with the runway. When an aircraft begins to turn, a higher engine setting may be required to maintain airspeed and thus increase CO2 emissions, fuel burn and noise. The instrument approach proposed will allow aircraft to fly in a straight line over the ground to land with minimal alterations to their direction of travel and engine settings. This type of approach will allow pilots to configure the aircraft more efficiently and potentially minimise fuel burn, CO2 and noise during the approach.

This lower power settings are offset against an average increase of around 4.5 nautical miles for an aircraft to fly the instrument approach.

5.1.3 Tranquility and Visual Intrusion

The instrument approach is not being implemented to increase the number of flights to or from Stapleford Aerodrome and any increase is expected to be negligible as described earlier.

Consequently, the aerodrome does not believe that there will be any significant positive or negative impact on tranquility and visual intrusion as a result of the proposal.

As shown in figure 6, the placement of a Hold at 2300ft close to the Stondon Massey and Blackmore villages. These two villages may experience some visual intrusion; however, this does not mean their residents will see significant numbers of aircraft as it is expected that there will be approximately 2 per day that commences the approach near these villages and only a small proportion of these aircraft will fly the hold.
6 How does this proposal affect me?

This section provides a qualitative assessment of the noise and number of aircraft which may have an impact to areas overflown by the proposed instrument approach procedures.

6.1 Assessment

Figure 6: Map of areas impacted by instrument approach

The dark blue line in Figure 6 highlights the proposed instrument approach to runway 21L and the shaded areas show the underlying areas that may be impacted. Aircraft will typically start the instrument approach by joining from A and funnel into B (to land on runway 21L).

All approaches terminate within C at the aerodrome. Area E is used by aircraft using the missed approach procedure (dashed blue line). When, for any reason, it is judged that an approach cannot be continued to a successful landing, a missed approach or go-around is flown.

As noted in section 2.3 only 3% of arrivals are anticipated to utilise the instrument approach procedure.

Table 2 below describes the impact to areas A to E in terms of noise and number of aircraft. The terms, definition and key used in Table 2 have been defined in Table 1.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>![减少符号]</td>
<td>We estimate a net reduction of noise or aircraft numbers.</td>
</tr>
<tr>
<td>![增加符号]</td>
<td>We estimate a net increase of noise or aircraft numbers.</td>
</tr>
<tr>
<td>![无符号]</td>
<td>We estimate no change of noise or aircraft numbers.</td>
</tr>
</tbody>
</table>

Table 1: Terms, definitions and key used in qualitative assessment
<table>
<thead>
<tr>
<th>Region</th>
<th>Impact</th>
<th>Category</th>
<th>Rationale (Change to current day visual operations)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Noise</td>
<td></td>
<td>Aircraft will be flying at the same height (minimum 2300ft) when compared to an aircraft on a similar track flying a visual approach.</td>
</tr>
<tr>
<td></td>
<td>No. of aircraft</td>
<td></td>
<td>No change is expected to number of aircraft in this area. As shown in the track sample presented earlier, this area is already overflown for aircraft arriving and departing from Stapleford.</td>
</tr>
<tr>
<td>B</td>
<td>Noise</td>
<td></td>
<td>We anticipate a small increase in noise to the north of the A414, as the aircraft flying the approach will be directed over this area. It is also noted that the aircraft are at a relatively high altitude.</td>
</tr>
<tr>
<td></td>
<td>No. of aircraft</td>
<td></td>
<td>A very small increase in the number of aircraft to the north of the A414. Compared to the traffic sample, this area does not currently receive many overflights from Stapleford. The impact is expected to be around two movements per day.</td>
</tr>
<tr>
<td>C</td>
<td>Noise</td>
<td></td>
<td>This area represents the ATZ and most circuit traffic is contained within this area. Compared to circuit traffic in level flight, aircraft arriving will be in low power configuration and quieter. The level of noise from the procedure should be negligible to undetected against this background.</td>
</tr>
<tr>
<td></td>
<td>No. of aircraft</td>
<td></td>
<td>There is estimated to be no change to number of aircraft in the ATZ. Given that the aircraft would be flying to airport, all flights will have to follow the straight in approach at this point. Any additional movements should be undetectable due to the volume of training movements at Stapleford.</td>
</tr>
<tr>
<td>D</td>
<td>Noise</td>
<td></td>
<td>Most visual departures from RWY 21 impact this area. Noise from the new procedure should only be experienced when a missed approach is flown. This is expected to be rare in IFR operations. Noise from training flights flying the procedure is expected to be negligible in comparison.</td>
</tr>
<tr>
<td></td>
<td>No. of aircraft</td>
<td></td>
<td>As noted, this area is impacted only in the event of a missed approach being flown. This is expected to be rare and consequently, no change to number of aircraft in this area.</td>
</tr>
<tr>
<td>E</td>
<td>Noise</td>
<td></td>
<td>We anticipate no change in noise as aircraft flying the missed approach will keep to a more northerly track in an area that is dominated by departures. Most noise would be from aircraft flying the missed approach for training purposes. However, compared to the departure dominated overflights through the area, this is deemed to be negligible.</td>
</tr>
<tr>
<td></td>
<td>No. of aircraft</td>
<td></td>
<td>We anticipate a slight increase in traffic due to the combination of training traffic and aircraft flying further out when needing to use the missed approach. Compared to the overall numbers, this should be indistinguishable.</td>
</tr>
</tbody>
</table>

Table 2: Qualitative assessment of areas impacted by the instrument approach procedure
7 Consultation Process

7.1 Overview

The purpose of this consultation is to provide stakeholders and members of the public an opportunity to express their opinion, comment on the Airspace Change Proposal and for Stapleford Aerodrome to share information with them.

A full list of the stakeholders being contacted directly is provided in Appendix E which fall into two following groups: aviation and non-aviation stakeholders. The consultation document will be available to all stakeholders through the SFC website (advertised through local media and social media), public meetings and hard copies available at local libraries and on request.

7.2 Roles and Responsibilities

The roles and responsibilities of the key organisations central to facilitating, ensuring adherence to the consultation process and approval (if successful) of the proposal have been provided below.

**Stapleford Aerodrome**

The SFC is the ‘change sponsor’ for this proposal and is therefore responsible for the content of the proposal and also the consultation process. In developing the Airspace Change Proposal, Stapleford Aerodrome are following the framework laid down by the CAA within CAP 725 CAA Guidance on the Application of the Airspace Change Process.

**CAA Safety & Airspace Regulation Group (SARG)**

The CAA Safety & Airspace Regulation Group (SARG) is responsible for the Airspace Change Process. Any complaints regarding the Aerodrome’s adherence to the airspace change process should be made to the address below. Any other responses will be referred back to Stapleford Aerodrome.

**Airspace Regulator (Coordination)**

**Airspace, ATM and Aerodromes**

**Safety and Airspace Regulation Group**

**CAA House**

**45-59 Kingsway**

**London WC2B 6TE**

**Civil Aviation Authority**

The ultimate decision on the implementation of the proposed approach procedure will be taken by the UK Civil Aviation Authority (CAA), the national regulatory body.

7.3 Consultation Kick-off

The proposal will be subject to a 14-week long stakeholder consultation commencing on 18th December 2017 and finishing on 26th March 2018.
All information regarding the airspace change proposal can be found on the Stapleford flight centre website at www.flysfc.com.

Hard copies will also be made available, on request, from the SFC on email address staplefordACP@askhelios.com.

7.4 How to respond to this consultation

All stakeholders are invited to submit their feedback during the consultation period through the communication channels listed below. All feedback will be given appropriate consideration and included in the aerodrome’s consultation summary report which will identify the issues and key themes identified through the consultation and how the aerodrome intends to address them. This will be published on the SFC website before the formal proposal is submitted to the CAA (see the ACP Timetable, Table 3). All feedback received will be submitted to the CAA. If you do not want your personal information to be passed to the CAA, then please ensure that this is clearly shown/stated in your feedback.

It is strongly recommended that you fully read this section before you write your response.

The consultation closes at 12:00 Noon, on 26th March 2018.

Website and Email

You are invited to respond using the online response form available at https://www.surveymonkey.co.uk/r/staplefordACP.

Alternatively, you will find a hard copy version of the response form in Section 8 of this document.

You can also find a copy of the response form to download at http://bit.ly/2B7NPcK, which can be printed off or completed electronically and emailed. Once complete either scan and return to staplefordACP@askhelios.com or post to the address below.

Post

If you are unable to use email, please send a letter to the following address:

Stapleford ACP Consultation Response
Stapleford Airport
Stapleford Tawney
Romford RM4 1SJ

Please note, we will only be responding to individual comments when it is necessary to do so to ensure that all stakeholders have the information that they need to participate in the consultation (e.g. if further information or clarification on this proposal is needed).

7.5 Consultation drop-in session

All stakeholders are invited to attend a drop-in session at Stapleford Airport to be held at the airport on Tuesday 13th February between 15:00 and 22:00.
To ensure sufficient personnel are available to support the drop-in session, any stakeholder intending to attend this session is requested to book a convenient slot through the following link: https://doodle.com/poll/cn43b7umi4pkvx2d.

7.6 What happens next?

After the consultation period closes, the SFC will analyse the responses and publish a report summarising the feedback received and will identify the issues and key themes identified through the consultation and how the aerodrome intends to address them. Relevant information about the consultation in general, and any other information which might be useful, will also be collated. The report will be published on the SFC website as detailed in Table 3.

Following this, the Airspace Change Proposal (ACP) based on this consultation document and the feedback report, will be sent to the CAA.

The CAA will then complete their regulatory assessment of the proposal. The CAA will decide if it has merit, and will publish a decision on its website.

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>18th December 2017</td>
<td>Consultation period commences</td>
</tr>
<tr>
<td>26th March 2018</td>
<td>Consultation period ends</td>
</tr>
<tr>
<td>14th May 2018</td>
<td>Consultation Summary Report issued</td>
</tr>
<tr>
<td>Q2/Q3 2018</td>
<td>Submission of full ACP to CAA</td>
</tr>
<tr>
<td>Q3 2018</td>
<td>CAA Regulatory Decision</td>
</tr>
<tr>
<td>Q1 2019</td>
<td>Potential implementation of Instrument Approach</td>
</tr>
</tbody>
</table>

Table 3: Planned Airspace Change Timetable
8 Consultation Feedback Form

Using a standard format makes it easier to interpret responses, which in turn makes each response more effective. Please use the following form when responding to the consultation by email or letter. It would be helpful to include in your comments specific place(s) where you think there would be changes of impact due to this proposal. Comments are also welcome if you think there would be no change of impact.

<table>
<thead>
<tr>
<th>Please complete this form and return to Stapleford flight centre via email or post.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name:</strong></td>
</tr>
<tr>
<td><strong>Representing (self or organisation):</strong></td>
</tr>
<tr>
<td><strong>Address:</strong></td>
</tr>
<tr>
<td><strong>Email:</strong></td>
</tr>
</tbody>
</table>

☐ Please tick this box if you do NOT want to share your personal information with the CAA

<table>
<thead>
<tr>
<th>Consultation Options – Please tick the option which you would like to support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option A</strong></td>
</tr>
<tr>
<td><strong>Option B</strong></td>
</tr>
</tbody>
</table>

| Comments: (please add additional pages as required if submitting hard copy responses) |

Figure 7: Consultation Feedback Form
A Glossary

ACP  Airspace Change Proposal  A proposal presented to the Civil Aviation Authority by an airport or an air traffic service provider eg NATS (see below), to change/introduce controlled airspace or (published) aircraft procedures

AIP  Aeronautical Information Publication  Information updated every 28 days that is essential to air navigation.

AOPA  Aircraft Owners and Pilots Association  The Aircraft Owners and Pilots Association UK, the trading name of British Light Aviation Centre Limited, is part of AOPA, the world’s largest, most influential aviation membership association

ATZ  Aerodrome Traffic Zone  An airspace of defined dimensions established around an aerodrome for the protection of aerodrome traffic

CAA  Civil Aviation Authority  The governing body of Aviation in the UK

CAP  Civil Aviation Publication  Publications produced by the Civil Aviation Authority

DME  Distance Measuring Equipment  Navigation beacon, usually coupled with a VOR beacon, to enable aircraft to measure their position relative to that beacon

FAS  Future Airspace Strategy  Plans for the future make up of UK airspace

GA  General Aviation  Flights not involved in commercial air transport

GPS  The Global Positioning System  A space-based radio-navigation system owned by the United States government and operated by the United States Air Force

GNSS  Global Navigation Satellite System  Aircraft can navigate by the use of satellites (much the same as a satnav on your phone or car)

IAF  Initial Approach Fix  The position in the sky that an aircraft will start its approach to land

IAP  Instrument Approach Procedures  A series of predetermined manoeuvres for the orderly transfer of an aircraft under instrument flight conditions from the beginning of the initial approach to a landing or to a point from which a landing may be made visually or the missed approach procedure is initiated.

IFR  Instrument Flight Rules  Navigate by use of cockpit instruments tuned in to radio beacons and the Global Navigation Satellite System (GNSS). These aircraft require instrument procedures that enable the aircraft to approach and land at an aerodrome.
<table>
<thead>
<tr>
<th>MAP</th>
<th>Missed Approach Procedures</th>
<th>When, for any reason, it is judged that an approach cannot be continued to a successful landing, a missed approach or go-around is flown. A missed approach procedure is the procedure to be followed if an approach cannot be continued. It specifies a point where the missed approach begins, and a point or an altitude/height where it ends.</th>
</tr>
</thead>
<tbody>
<tr>
<td>NATMAC</td>
<td>National Air Traffic Management Advisory Committee</td>
<td>The National Air Traffic Management Advisory Committee (NATMAC) is a non-statutory advisory body sponsored by Director of Airspace Policy (DAP). The Committee is consulted for advice and views on any major matter concerned with airspace management.</td>
</tr>
<tr>
<td>NDB</td>
<td>Non-Directional Beacon</td>
<td>A radio transmitter at a known published position used an aviation navigational aid.</td>
</tr>
<tr>
<td>PBN</td>
<td>Performance-based Navigation</td>
<td>Navigation of aircraft using navigation satellites and computerised on-board systems.</td>
</tr>
<tr>
<td>RNAV</td>
<td>Area Navigation</td>
<td>Aircraft can fly any course without having to route over a beacon on the ground.</td>
</tr>
<tr>
<td>VFR</td>
<td>Visual Flight Rules</td>
<td>Navigate and land by visual reference to the ground and landmarks.</td>
</tr>
</tbody>
</table>
B  Stapleford Aerodrome ATZ

Figure 8: Stapleford Aerodrome ATZ
C Typical aircraft operating at Stapleford

Figure 9: Diamond DA42S

Figure 10: Piper PA28R
Figure 11: Cessna 152
D Instrument Approach Charts (Instrument Arrival Maps)

Figure 12: Draft instrument approach procedure for runway 21
E List of Consultees

E.1 Aviation Consultees

Airspace and airport users group

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Description</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stapleford flight centre</td>
<td>Commercial and private pilot training</td>
<td><a href="http://www.flysfc.com/">http://www.flysfc.com/</a></td>
</tr>
<tr>
<td>London Executive Aviation</td>
<td>Air Charter Airline</td>
<td><a href="http://www.flylea.com">www.flylea.com</a></td>
</tr>
<tr>
<td>Air Charter Service</td>
<td>Private Jet Charter</td>
<td><a href="http://www.aircharter.co.uk/">http://www.aircharter.co.uk/</a></td>
</tr>
<tr>
<td>HERTS and ESSEX Aero Club Limited</td>
<td>Aeroclub</td>
<td><a href="https://beta.companieshouse.gov.uk/company/00412988/officers">https://beta.companieshouse.gov.uk/company/00412988/officers</a></td>
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</table>

Local airports

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Description</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southend Airport</td>
<td>Major Airport</td>
<td><a href="mailto:damon.knight@southendairport.com">damon.knight@southendairport.com</a></td>
</tr>
<tr>
<td>Stansted Airport</td>
<td>Major Airport</td>
<td>through NATS UK</td>
</tr>
<tr>
<td>London City Airport</td>
<td>Major Airport</td>
<td>through NATS UK</td>
</tr>
<tr>
<td>North Weald</td>
<td>Small Airfield</td>
<td><a href="mailto:dgoodey@eppingforestdc.gov.uk">dgoodey@eppingforestdc.gov.uk</a> <a href="mailto:info@northwealdairfield.org">info@northwealdairfield.org</a></td>
</tr>
</tbody>
</table>

The National Air Traffic Management Advisory Committee (NATMAC)

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Acronym</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aircraft Owners &amp; Pilots Association</td>
<td>AOPA UK</td>
</tr>
<tr>
<td>Airfield Operators Group</td>
<td>AOG</td>
</tr>
<tr>
<td>Airlines UK</td>
<td></td>
</tr>
<tr>
<td>Airport Operators Association</td>
<td>AOA</td>
</tr>
<tr>
<td>Aviation Environment Federation</td>
<td>AEF</td>
</tr>
<tr>
<td>British Aerospace Systems</td>
<td>BAE Systems</td>
</tr>
<tr>
<td>British Air Transport Association</td>
<td>BATA</td>
</tr>
<tr>
<td>British Airline Pilots Association</td>
<td>BALPA</td>
</tr>
<tr>
<td>British Airways</td>
<td>BA</td>
</tr>
<tr>
<td>British Balloon &amp; Airship Club</td>
<td>BBAC</td>
</tr>
<tr>
<td>British Business &amp; General Aviation Assc</td>
<td>BBGA</td>
</tr>
<tr>
<td>British Gliding Association</td>
<td>BGA</td>
</tr>
<tr>
<td>British Hang Gliding &amp; Paragliding Assc</td>
<td>BHPA</td>
</tr>
<tr>
<td>British Helicopter Association</td>
<td>BHA</td>
</tr>
<tr>
<td>British Microlight Aircraft Association</td>
<td>BMAA</td>
</tr>
<tr>
<td>British Model Flying Association</td>
<td>BMFA</td>
</tr>
<tr>
<td>Consultee</td>
<td>Acronym</td>
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<td>--------------------------------------------------------------</td>
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</tr>
<tr>
<td>British Parachute Association</td>
<td>BPA</td>
</tr>
<tr>
<td>Civil Aviation Authority</td>
<td>CAA</td>
</tr>
<tr>
<td>Defence Airspace &amp; Air Traffic Management</td>
<td>DAATM</td>
</tr>
<tr>
<td>Future Airspace Strategy VFR Implementation Group</td>
<td>FASVIG</td>
</tr>
<tr>
<td>GAA</td>
<td></td>
</tr>
<tr>
<td>General Aviation Safety Council</td>
<td>GASCo</td>
</tr>
<tr>
<td>Guild of Air Pilots &amp; Air Navigators</td>
<td>GAPAN</td>
</tr>
<tr>
<td>Guild of Air Traffic Control Officers</td>
<td>GATCO</td>
</tr>
<tr>
<td>Heathrow Airport Ltd</td>
<td>HAL</td>
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<tr>
<td>Heavy Airlines</td>
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<tr>
<td>Helicopter Club of Great Britain</td>
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</tr>
<tr>
<td>Honourable Company of Air Pilots</td>
<td></td>
</tr>
<tr>
<td>Isle of Man</td>
<td>IoM</td>
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<tr>
<td>Light Aircraft Association</td>
<td>LAA</td>
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<td>Light Airlines</td>
<td></td>
</tr>
<tr>
<td>Low Fares Airlines</td>
<td>LFA</td>
</tr>
<tr>
<td>Military Aviation Authority</td>
<td>MAA</td>
</tr>
<tr>
<td>Ministry of Defence</td>
<td>MoD</td>
</tr>
<tr>
<td>National Air Traffic Services</td>
<td>NATS</td>
</tr>
<tr>
<td>PPL/IR</td>
<td></td>
</tr>
<tr>
<td>UK Airprox Board</td>
<td>UKAB</td>
</tr>
<tr>
<td>UK Flight Safety Committee</td>
<td>UKFSC</td>
</tr>
<tr>
<td>Unmanned Aerial Vehicles Association</td>
<td>UAVS</td>
</tr>
</tbody>
</table>

### E.2 Non-aviation Consultees

#### National organisations

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Contact</th>
</tr>
</thead>
</table>
| Natural Environment Research Council                         | Natural Environment Research Council  
Polaris House, North Star Avenue  
Swindon, SN2 1EU  
United Kingdom |
| Natural England                                              | foi@naturalengland.org.uk |
| National Trust                                               | enquiries@nationaltrust.org.uk |

#### Local authorities

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Essex County Council</td>
<td><a href="mailto:contact@essex.gov.uk">contact@essex.gov.uk</a></td>
</tr>
<tr>
<td>Consultee</td>
<td>Contact</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Brentwood District</td>
<td><a href="mailto:enquiries@brentwood.gov.uk">enquiries@brentwood.gov.uk</a></td>
</tr>
<tr>
<td>Epping Forest District</td>
<td>Epping Forest District Council, Civic Offices, 323 High Street, Epping, Essex CM16 4BZ</td>
</tr>
<tr>
<td>Havering London Borough</td>
<td>London Borough of Havering Town Hall, Main Road, Romford RM1 3BD</td>
</tr>
<tr>
<td>Redbridge London Borough</td>
<td><a href="mailto:customer.cc@redbridge.gov.uk">customer.cc@redbridge.gov.uk</a></td>
</tr>
<tr>
<td>Blackmore, Hook End and Wyatts Green CP</td>
<td><a href="mailto:clerkofblackmorepc@yahoo.co.uk">clerkofblackmorepc@yahoo.co.uk</a></td>
</tr>
<tr>
<td>Dodginghurst CP</td>
<td><a href="mailto:clerk@dodginghurst-pc.gov.uk">clerk@dodginghurst-pc.gov.uk</a></td>
</tr>
<tr>
<td>Fyfield CP</td>
<td><a href="mailto:caliban@gmx.co.uk">caliban@gmx.co.uk</a></td>
</tr>
<tr>
<td>High Ongar CP</td>
<td><a href="mailto:clerk@highongarpc.co.uk">clerk@highongarpc.co.uk</a></td>
</tr>
<tr>
<td>Highwood CP</td>
<td><a href="mailto:highwoodpc@hotmail.com">highwoodpc@hotmail.com</a></td>
</tr>
<tr>
<td>Ingatestone and Fryerning CP</td>
<td>Ingatestone &amp; Fryerning Parish Council Suite 1 4 The Limes, Ingatestone Essex, CM4 0BE</td>
</tr>
<tr>
<td>Kelvedon Hatch CP</td>
<td><a href="mailto:clerk@kelvedonhatch-pc.gov.uk">clerk@kelvedonhatch-pc.gov.uk</a></td>
</tr>
<tr>
<td>Lambourne CP</td>
<td><a href="mailto:lambournepc@gmail.com">lambournepc@gmail.com</a></td>
</tr>
<tr>
<td>Moreton, Bobbingworth and the Lavers CP</td>
<td><a href="mailto:mblparsichcouncil@gmail.com">mblparsichcouncil@gmail.com</a></td>
</tr>
<tr>
<td>Mountnessing CP</td>
<td><a href="mailto:parishclerk.mountnessingpc@yahoo.co.uk">parishclerk.mountnessingpc@yahoo.co.uk</a></td>
</tr>
<tr>
<td>Navestock CP</td>
<td><a href="mailto:navestockpcclerk@gmail.com">navestockpcclerk@gmail.com</a></td>
</tr>
<tr>
<td>Ongar CP</td>
<td><a href="mailto:clerk@ongartowncouncil.gov.uk">clerk@ongartowncouncil.gov.uk</a></td>
</tr>
<tr>
<td>Stanford Rivers CP</td>
<td><a href="mailto:stanfordriverspc@gmail.com">stanfordriverspc@gmail.com</a></td>
</tr>
<tr>
<td>Stapleford Abbots CP</td>
<td><a href="mailto:john.ashetons@btinternet.com">john.ashetons@btinternet.com</a></td>
</tr>
<tr>
<td>Stapleford Tawney CP</td>
<td><a href="mailto:burrs.bellsfarm@gmail.com">burrs.bellsfarm@gmail.com</a></td>
</tr>
<tr>
<td>Stondon Massey CP</td>
<td><a href="mailto:clerk@stondonmasseypc.co.uk">clerk@stondonmasseypc.co.uk</a></td>
</tr>
<tr>
<td>Theydon Garnon CP</td>
<td><a href="mailto:vicdor1933@gmail.com">vicdor1933@gmail.com</a></td>
</tr>
<tr>
<td>Theydon Mount CP</td>
<td>Ann Brewett 1 Beachet Cottages, Mount End Theydon Mount, Epping, Essex CM16 7PN</td>
</tr>
</tbody>
</table>

**Greater London Authority**

City Hall
The Queen's Walk
London SE1 2AA

**Town and Community Councils**
## Members of Parliament

<table>
<thead>
<tr>
<th>Consultee</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex Burghart, Member for Brentwood and Ongar</td>
<td><a href="mailto:alex.burghart.mp@parliament.uk">alex.burghart.mp@parliament.uk</a></td>
</tr>
<tr>
<td>Eleanor Laing, Member for Epping Forest</td>
<td><a href="mailto:eleanor.laing.mp@parliament.uk">eleanor.laing.mp@parliament.uk</a></td>
</tr>
<tr>
<td>Julia Lopez, Member for Hornchurch and Upminster</td>
<td><a href="mailto:julia.lopez.mp@parliament.uk">julia.lopez.mp@parliament.uk</a></td>
</tr>
<tr>
<td>Wes Streeting, Member for Ilford North</td>
<td><a href="mailto:wes.streeting.mp@parliament.uk">wes.streeting.mp@parliament.uk</a></td>
</tr>
<tr>
<td>Andrew Rosindell, Member for Romford</td>
<td><a href="mailto:andrew.rosindell.mp@parliament.uk">andrew.rosindell.mp@parliament.uk</a></td>
</tr>
</tbody>
</table>