

Summary of Stakeholder Engagement ACP-2021-002 - TDA Delayed Start

Version 1.0 of this document was created in support of the application for a TDA delayed start that was shared with stakeholders on 24/02/2022. To that end, further engagement with targeted stakeholders was required to ensure that the potential impacts of a delayed start to the TDA were fully understood, acknowledged and mitigated with local aviation users.

This document details the stakeholders engaged as part of the request for a delayed start to the TDA. It details the duration, lists of engaged stakeholders and summary of their responses. The evidence of engagement is included along with an analysis of the responses and a conclusion on the TDA delay request.

On submission of this report ACP-2021-002 EG D096 A-C has not been activated since the extension. We have had no stakeholder feedback to date, although this is as expected, given the level of activation. There have been no activations since the extension was granted.

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1. Introduction

The following evidence was published by Apian and SkyLift UAV in support of a TDA delayed start for ACP-2021-002:

Dear Stakeholder,

We would be grateful for your support for a delayed start to ACP-2021-002 which currently expires on 31 March 2022.

First of all, thank you to all those who have helped us research the value of delivering chemotherapy by drone to cancer patients. Apian is a medical drone startup founded by NHS doctors with support from the NHS Clinical Entrepreneur Programme. We work on behalf of the NHS to operationalise drone technology and research the impact it has on patient health outcomes and staff wellbeing. In collaboration with the University of Southampton and King's College London, we have now successfully completed the required vibration testing and obtained approval from the NHS Pharmacy Manufacturing Unit to deliver chemotherapy to St Mary's Hospital, Isle of Wight. Unfortunately, due to a combination of the extreme weather conditions the UK has experienced including Storm Dudley, Storm Eunice, Storm Franklin, and a COVID outbreak within the Skylift UAV team, we have not been able to complete the necessary number of flights for this stage of the project. As a result, we are seeking your support for a delayed start to our TDA. It has not yet been activated, we are not looking to extend its duration nor are we looking to increase the number of flights planned. Given the impact of COVID-19 and the resulting NHS backlog, this work has never been more critical. It will be the first time chemotherapy has ever been delivered by drone and world firsts don't come easy.

Given the AIRAC cycle, the next available start date is 05 May. This requires us to begin our formal application to the CAA for a delayed start to ACP-2021-002 by 14 March. Before we do so, we wanted to update you and ask for your support. Would you kindly let us know if we have it? Please call or email me directly. I'm happy to answer any questions and can arrange a briefing if you prefer. I am at your service.

Attached is a letter from the Chief Pharmacist of Isle of Wight NHS Trust explaining why this work is so important and thanking you for your support of it.

Yours gratefully,



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07500 007223



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5 Nov 2021

To whom it may concern,

Support for Isle of Wight NHS Trust and partners to complete research of chemotherapy delivery by Drone

For the past year, together with colleagues at Portsmouth University Hospitals NHS Trust, we've been researching the potential benefits of using drones to deliver chemotherapy and are finally in position to carry out the actual flights across the Solent to test the vibration impact on medicines in their real-world environment.

To ensure patient safety, we must gather enough evidence over a suitable period of time. We need 2 months of concurrent operations to achieve this. The TDA (temporary danger area) expires on 23 November, we request an extension to the TDA to ensure that we have enough time to carry out extensive testing on the most commonly used monoclonal antibody drugs. Without an extension to the TDA we can only certify a small fraction of the most commonly used monoclonal antibody drugs. A period of less than 2 months will reduce the number of data points gathered to 1 month, in most instances this is unhelpful for trend analysis. Therefore 2 months will provide enough operational procedure validation, spanning several staff shift variations, which is necessary for pharmacy team resource consideration. It will also provide more opportunities for Air Ambulance/HM Coastguard procedure integration and allow us to better determine the long-term economic sustainability of a drone delivery service.

Although there are now several published articles regarding the transport of drugs in drones, none demonstrate what the effect of this new mode of transport has on the stability of chemotherapy and immunotherapy products. In the month of October 2021, we transported via hovercraft a combination of over 200 chemotherapy and immunotherapies. It is therefore of vital importance that we have enough time to complete stability studies of these products by drone. An extension will ensure we secure robust scientific evidence.

Moving items by drone across the Solent can ensure we receive a great range of prescribed chemotherapy drugs in a more timely and efficient manner. The Pharmacy Department and the wider Isle of Wight NHS Trust are extremely grateful to you for the part you play in helping us best serve our patients.

Yours sincerely

Mr Thomas E H Cox
Chief Pharmacist and Associate Director Medicines Optimisation

2. Stakeholder Engagement Approach

All stakeholders engaged during this proposal to delay the start have been previously engaged in the design of ACP-2021-002 on numerous occasions, This document supports the methodology and approach described in 'Airspace Change Proposal ACP-2021-002 Summary of Stakeholder Engagement and Final Proposal' V2.0 dated 03/06/2021 in which the final design of the TDA complex was agreed.

Advice was sought from the CAA Airspace team, 32 target stakeholders were engaged on 24/02/2021 and were asked to provide responses by the end of 14/03/2022, allowing over 2 weeks to provide feedback on the delayed start proposal.

Apian sent selected stakeholders, by e-mail where possible, the engagement material as per section 1.

A follow up mail was sent on 08/03/2022 to those stakeholders that were yet to respond where 1:1 update briefings were offered and in some cases accepted. The desire was to ensure all stakeholders had the opportunity to understand the request, ask any questions and share their feedback.

The engagement material was uploaded to the CAA Airspace Change Portal so that any potential stakeholders that were missed had the opportunity to make their views known. Table 1 provides a list of all stakeholders that were contacted, whether they responded, and confirmation that their response has been closed.

Table 1.

Stakeholder	Date sent	Response	Open / Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed

[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022	Yes	Closed
[REDACTED]	24/02/2022		

3. Stakeholder Evidence, Feedback and Conclusion

3.1 Engagement material

The email in section 1 was sent out to all stakeholders on 24/02/2022 with attached supporting statements from Isle of Wight (IOW) NHS Trust below:

The following was sent to stakeholders that hadn't responded on March 8th from Dr Sophie Barrack:

Dear Stakeholder,

Following on from my colleague Alexander's email regarding the request for your support to delay ACP-2021-002, I wanted to contact you to offer further information or support if you wish.

Firstly, please allow me to introduce myself, I am Dr Sophie Barrack, and I am the Programme Director at Apian. I recently joined the team from the NHS after being motivated by seeing the groundbreaking work they were conducting, and having experienced first hand the challenges the NHS face in delivering vital support to our patients.

This project is incredibly important to the NHS and aims to deliver critical chemotherapy treatment to individuals on the Isle of Wight. If you are interested in learning more about the details of this project please let me know and I'll find some time to talk you through them.

We are keen to ensure that we minimise the impact of the research on other airspace users and as such have constrained the TDA activation times as before. If you would like to discuss in more detail any questions or concerns you have, please do not hesitate to contact me and I will be happy to arrange a video call with you.

Even if you do not have any comments and are happy to support our request, please do let us know so we can inform the CAA.

Regards

Dr Sophie Barrack

3.2 Summary of Feedback

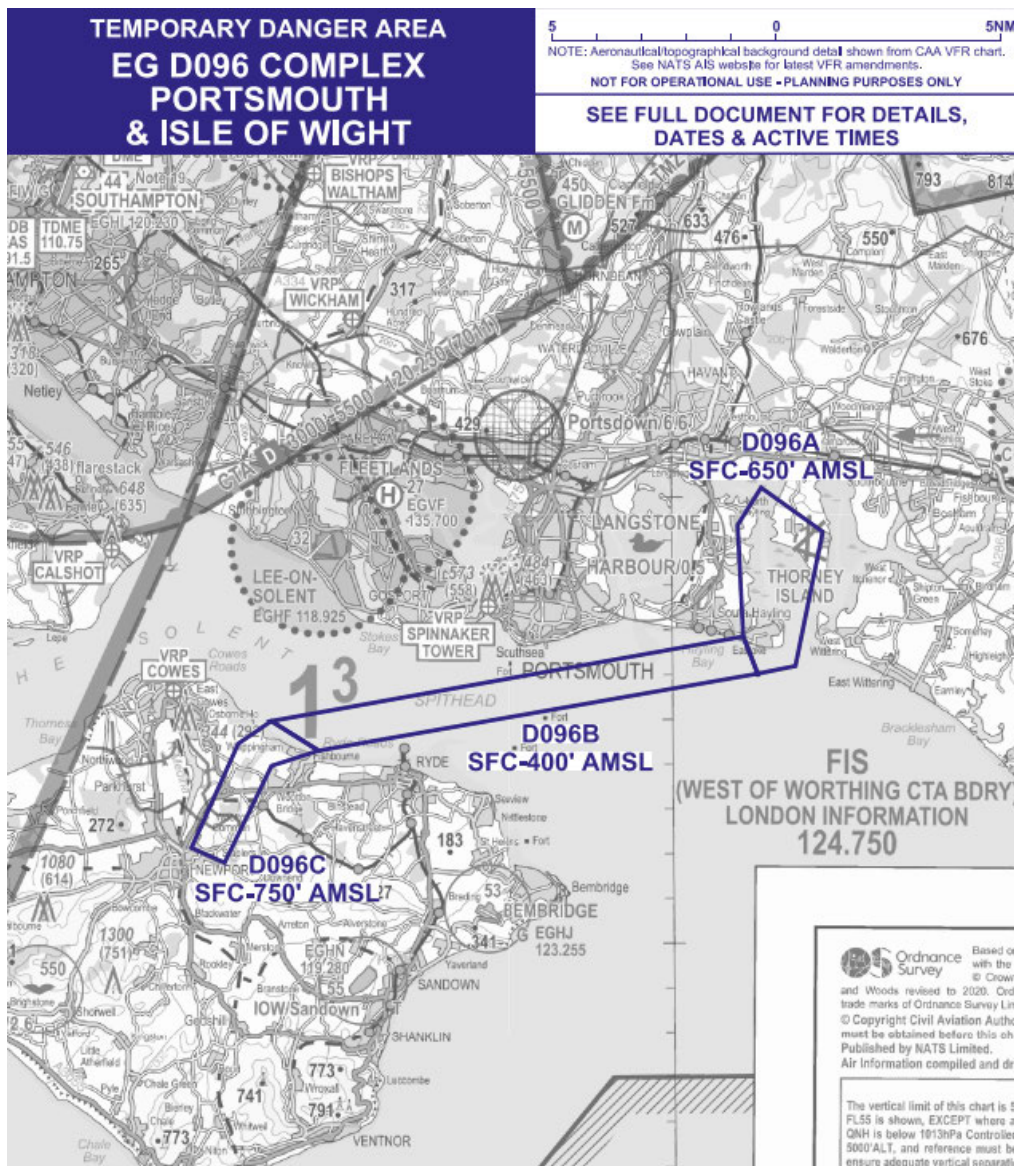
Apian received feedback from 17 of the 32 targeted stakeholders. 14 of the stakeholders were either supportive of the proposed delayed start or had no objection to it. 3 stakeholders opposed the proposal. The key elements of feedback are highlighted below:

Generally there was little in the way of questions or follow up, likely given there is no change in the geometry of the airspace, number of flights or activation times for the TDA. One stakeholder ([REDACTED] of [REDACTED]) requested a meeting in which the project was discussed and ultimately [REDACTED] confirmed they "fully support" our request.

3.3 Analysis of Responses and Conclusion

Apian and Skylift UAV appreciate the feedback provided by stakeholders. Each response was analysed carefully to ensure a proposed delayed start to ACP-2021-002 can be managed with minimal impact to local aviation users.

The trial outcome can be achieved with BVLOS operations from Thorney Island Baker Barracks to St Mary Hospital, Isle of Wight. The TDA complex design was updated to include 3 sections, A, B and C when the original extension was granted, the TDA complex is shown below:



SkyLift UAV will activate sections A, B and C of the TDAs for periods of no longer than 4 hours each day. This will typically be during afternoon hours and supports the current manufacturing schedule of the treatments required by the IOW NHS trust. The activation times are expected to be as follows: Monday - Thursday 14:00-18:00 local and Friday 10.30-14.30 local.

The letters of agreement that have been drawn up by Skylift UAV Ltd and, jointly, Chichester and District Model Aero club (CADMAC) and Thorney Island Microlight Club (TIMC) to specify deconfliction procedures within the TDAs remain in place if the TDA is delayed. This has been acknowledged as part of the stakeholder feedback process and all issued LOAs remain current for the delayed trial.

Skylift UAV will give priority to emergency services aircraft requiring access to active TDAs. While HM Coastguard and the National Police Air Service were content with the information that will be provided by the TDA activation NOTAM, Hampshire and Isle of Wight Air

Ambulance required a more detailed arrangement. To that end, Skylift UAV have signed an LOA with Babcock Onshore, the Air Ambulance operators, to specify deconfliction procedures within the TDAs, this will continue if a delayed start is agreed.

4. Summary and Justification for Delayed Start

The Isle of Wight NHS Trust's Pharmacy Manufacturing Unit (PMU) was decommissioned in July 2020. It has since been dependent on the mainland for the supply of its chemotherapy which must be delivered by ground courier to Portsmouth, then by ferry or hovercraft to the Isle of Wight, then by taxi to St Mary's Hospital. Disruptions to these services, including cancellations, delays and changing timetables complicate deliveries, leading to treatment delays and additional pressure on staff. It currently can take up to 3 or even 4 hours to transport chemotherapy from the nearest PMU at Portsmouth Hospitals University NHS Trust to St Mary's. Reducing this to a reliable, 30 minute flight will be transformative, making available to patients chemotherapy previously unobtainable on account of their short shelf lives, avoid unnecessary patient journeys to the mainland, minimise treatment delays and save staff time.

Due to the short shelf lives, chemotherapy is currently manufactured and delivered by the PMU as bespoke doses a day in advance, before the patient has been clinically assessed and confirmed to be physically able to receive treatment. When a patient's health deteriorates such that they are unable to receive chemotherapy, their treatment is delayed and their dose is wasted. An on-demand drone delivery service will allow for a sequential process where manufacturing is only started after a positive patient assessment, enabling the PMU to deliver to St Mary's on the day of the patient's treatment. As some of these medicines cost several thousands of pounds per dose, this will save the NHS costs and bring care closer to patient homes, opening up the possibility for the provision of other treatments on the island such as potentially life-saving, clinical trial chemotherapy which have particularly short shelf lives.

Apian is not a drone company, it is a medical drone startup founded by NHS doctors in training with support from the NHS Clinical Entrepreneurs Programme. We work on behalf of the NHS to operationalise drone technology and research the impact it has on patient health outcomes and staff well-being. We are familiar with the various NHS drone related projects taking place across the country and couldn't agree more with the feedback for better coordination of activities. This is Apian's directive and starting with the Solent, we are collaborating with NHS England, NHS Cancer Programme, NHS Greener Team and NHS Blood & Transplant, along with ten NHS Trusts to unify their healthcare needs, forming the basis for a single NHS-wide ACP.

As delivering chemotherapy by drone will be a world-first, the Medicines and Healthcare products Regulatory Agency (MHRA) requires evidence from real-world tests demonstrating chemotherapy is not negatively impacted by drone flight (vibration and temperature). This requires flying chemotherapy across the Solent and not simply within VLOS limits. In partnership with Southampton University and King's College London, we have begun researching the impact of drone flight on redundant chemotherapy and have shared initial

results with Portsmouth Hospitals University NHS Trust's PMU on 09/11/21. Analysis showed no negative impact of hover flight on the first medication, Bevacizumab, to be tested. Now we need to test the impact of transitional BVLOS flights from the PMU to St Mary's for the NHS and MHRA to approve the freight of chemotherapy by drone.

We need 2 months of real-world operations to ensure patient safety and inform NHS standards and best practice guidelines. This provides the time needed to research the benefit of on-demand drone delivery to cancer patients, gathering enough data to gain reliable results and perform trend analysis. Working as best as we can within constrained NHS resources, 2 months provides the absolute minimum time required to validate operational procedures and test integration into the hospital environment, enabling the Isle of Wight NHS Trust to determine the long-term feasibility and sustainability of a drone delivery service.

Although there are now several published articles regarding the transport of medicines in drones, none demonstrate what the effect of this new mode of transport has on the stability of chemotherapy and immunotherapy products. In the month of October 2021, the Isle of Wight NHS Trust transported, via hovercraft, a combination of over 200 chemotherapy and immunotherapies. It is therefore of vital importance that the NHS has the 2 months it needs to complete stability studies of these products by drone. A delay in the start to the TDA will ensure we secure robust scientific evidence.

In collaboration with the University of Southampton and King's College London, we have now successfully completed the required vibration testing and obtained approval from the NHS Pharmacy Manufacturing Unit to deliver chemotherapy to St Mary's Hospital, Isle of Wight. Unfortunately, due to a combination of the extreme weather conditions the UK has experienced including Storm Dudley, Storm Eunice, Storm Franklin, and a COVID outbreak within the Skylift UAV team, we have not been able to complete the necessary number of flights for this stage of the project. As a result, we are seeking your support for a delayed start to our TDA. It has not yet been activated, we are not looking to extend its duration nor are we looking to increase the number of flights planned. Given the impact of COVID-19 and the resulting NHS backlog, this work has never been more critical. It will be the first time chemotherapy has ever been delivered by drone and world firsts don't come easy.

If you would like to talk to the NHS and Apian further on our request to delay the start of the TDA and why less than 2 months is not sufficient, we would happily do so.

5. Delayed Start of current temporary airspace arrangement

1. From 05/05/2022 through to 05/07/2022, a Remotely Piloted Aircraft System (RPAS) will operate between Baker Barracks, Emsworth and St Mary's Hospital in Newport, Isle of Wight to carry out operational flights for the purpose of transporting essential medical goods between the healthcare sites in direct support of the NHS and UK Government response to the COVID-19 pandemic. As the RPAS will be operating Beyond Visual Line of Sight, a Temporary Danger Area (TDA) complex will be established to facilitate the safe operation of the RPAS.
2. The TDA complex is sponsored by Skylift UAV Limited in accordance with Airspace Change reference ACP-2021-002.
3. The TDA complex will consist of 3 Danger Areas to facilitate the route between the

healthcare sites. A chart of the area is included within this Aeronautical Information Circular.

4. Only the Danger Areas required for each flight or series of flights will be activated to minimise impact to other air users.

5. The required TDAs will be notified for activation no less than 24 hours prior to the planned flights. Activation of the TDAs could take place between the hours of 1400-1800 Monday to Thursday and 1030-1430 Friday, with actual dates and times of activation promulgated by NOTAM. All times referenced are UK local time.

6. EG DxxxA. When required from 05/05/2022 through to 05/07/2022, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –

- a. 50°50'10"N 000°56'50"W
- b. 50°49'10"N 000°54'40"W
- c. 50°46'10"N 000°55'40"W
- d. 50°46'00"N 000°57'00"W
- e. 50°46'50"N 000°57'30"W
- f. 50°49'20"N 000°57'40"W

7. Within EG DxxxA, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.

8. The Temporary Danger Area EG DxxxA is established between Surface and 650 FT AMSL.

9. EG DxxxB. When required from 05/05/2022 through to 05/07/2022, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –

- a. 50°46'00"N 000°57'00"W
- b. 50°44'20"N 001°12'30"W
- c. 50°45'00"N 001°14'10"W
- d. 50°46'50"N 000°57'30"W

10. Within EG DxxxB, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.

11. The Temporary Danger Area EG DxxxB is established between Surface and 400 FT AMSL.

12. EG DxxxC. When required from 05/05/2022 through to 05/07/2022, a Temporary Danger Area is established within the area bounded by straight lines joining successively the following points –

- a. 50°44'20"N 001°12'30"W
- b. 50°44'00"N 001°14'10"W
- c. 50°41'50"N 001°15'50"W
- d. 50°42'10"N 001°17'00"W
- e. 50°44'30"N 001°15'20"W
- f. 50°45'00"N 001°14'10"W



13. Within EG DxxxxC, Pre-Flight Information will be available from Skylift UAV via telephone number 0330 053 7600, which will be manned from 30 minutes before until 30 minutes after the notified activation period. When notified as active, requests for access to the TDA by emergency services aircraft shall be made by calling this number. Access to the TDA by emergency services aircraft will always be given priority over RPAS operations, which will be immediately suspended.

14. The Temporary Danger Area EG DxxxxC is established between Surface and 750 FT AMSL.

15. Further enquiries can be made to Airspace Regulation (Utilisation), Safety and Airspace Regulation Group, Civil Aviation Authority on telephone number 01293-983880

16. As part of the ACP process requirements, Skylift UAV is collecting feedback regarding this TDA and its impact over its duration which will be shared with the CAA. All feedback regarding this may be sent via email to info@skyliftuav.co.uk

6. Appendix 1: Stakeholder Responses

  16 Mar 2022, 18:22 (18 hours ago) ☆ ↶ ⋮
to me, Alexander ▾
Dear Sophie,
Apologies for the slow response and I note that the date for submission of the application to the CAA has now passed.
As a courtesy response, the SAR helicopter unit has no objection to a delay to ACP-2021-002.

Regards



  Sun, 13 Mar, 22:23 (4 days ago) ☆ ↶ ⋮

Dear Dr Barrack,

I'm sorry I did not respond to your colleague Alexander's email. It is unusual to be asked to positively support a trial and the associated airspace restrictions. Normally, a lack of objection is considered a form of support. The Sky Surfing Hang Gliding and Paragliding club have not objected to this particular UAS trials being conducted under ACP-2021-002, especially as the reason for it is potentially life saving.

The reason why we are not willing to positively endorse any trials involving BVLOS or autonomous drones, however worthy the reason for them, is that we have a concern that the increasing number of BVLOS trials is the thin end of a wedge that could ultimately lead to severe restrictions and increased risk of midair collisions for the General Aviation community, and the foot launched free flying community in particular.

So for this reason we will not be providing a positive endorsement of the trial. I hope you understand our position and we hope that it is successful and leads to improved outcomes for the Isle of Wight cancer patients.

Yours sincerely,





[Redacted]

Thu, 10 Mar, 08:08 (7 days ago) ☆ ↶ ⋮

Dear Dr Barrack,

We are happy to support the application for a delayed start to ACP-ACP-002 and for you to include this in your submission to the CAA.

Best regards

[Redacted]

[Redacted]



[Redacted]

Wed, 9 Mar, 10:20 (8 days ago) ☆ ↶ ⋮

Sophie,

Regrettably, I've moved on from Baker Barracks – however, I've copied in [Redacted] and [Redacted] who should be able to assist.

[Redacted]

[Redacted]

...



[Redacted]

Wed, 9 Mar, 10:53 (8 days ago) ☆ ↶ ⋮

Sophie,

From an Air Planning perspective I am content to support the delay in activating the TDA.

Regards,

[Redacted]

Urgent – Within 24 hours | Priority – Within 3 working days | Routine – Within 7 working days | Best Effort – When capacity allows

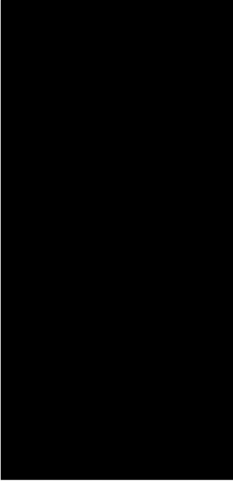


9 Mar 2022, 08:20

Good morning,

A positive response has been submitted by Southampton Airport Ltd.

Kind regards





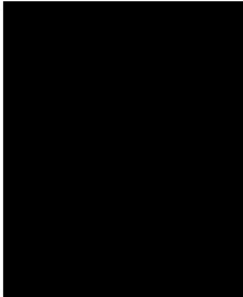
Wed, 9 Mar, 08:39 (8 days ago) ☆ ↶ ⋮

Dear Sophie,

Thank you for your email. I had responding to Alexander on my list of things to do. I would be delighted to have a Teams discussion about how we can support a delay ACP-2021-002.

I am available this afternoon at 15.00 or tomorrow afternoon at either 14.00 or 15.00. Perhaps you could send a Teams invite for any of those times if they work for you?

kind regards



...

Airspace Change Proposal ACP-2021-002 v1.0 18/03/2022



[Redacted]

Wed, 9 Mar, 16:13 (8 days ago) ☆ ↶ ⋮

Dear Sophie Max and Louisa,

Thank you for your time earlier. The text of our support letter for delaying the start of your TDA is as follows:

"Dear Alexander,

ARPAS UK fully supports your request to delay the start of the TDA in ACP-2021-002 to 5th Mat 2022. The work you are doing to develop BVLOS for medical deliveries from a pharmaceutical and clinical perspective, is in our view exactly how it should be done. It is essential that companies like Apian are encouraged to undertake these sort of initiatives. Anyone in the broader aviation community that does not provide the encouragement and support has not understood where the future of aviation lies."

kind regards



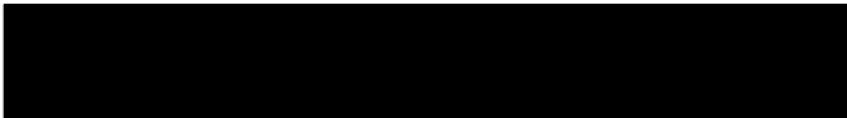
[Redacted]

13:24 (3 hours ago) ☆ ↶ ⋮

Hi Sophie,

My colleague, [Redacted] has been the MOD poc for this ACP but is on leave today. From our tracker, I can see that there was no objection to the proposed extension from May 22 for 2 months, with a reply sent on 8 Mar 22. It looks like you have what you needed, but if you do need any more specific feedback from MOD, please let us know. Please liaise directly with local military airspace users if you need their assistance in managing activity around the TDA.

Kind regards,



[Redacted]

Wed, 9 Mar, 16:15 (8 days ago) ☆ ↶ ⋮

Afternoon [Redacted]

I believe you may be in a better position to answer the below.

Many thanks in advance.

Best regards,



Airspace Change Proposal ACP-2021-002 v1.0 18/03/2022



Wed, 9 Mar, 11:39 (8 days ago) ☆ ↶ ⋮

Hi Sophie,

Thank you for the email. I will forward to the Lee on Solent Chief Pilot for comment (cc'd).



PSB and respond accordingly.

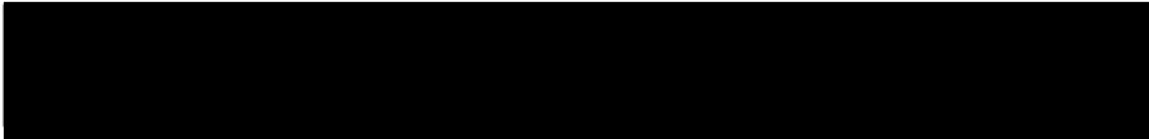
Cheers



Wed, 9 Mar, 10:20 (8 days ago) ☆ ↶ ⋮

Sophie,

Regrettably, I've moved on from Baker Barracks – however, I've copied in Steven Ridley and Adam Colbridge, who should be able to assist.



Airspace Change Proposal ACP-2021-002 v1.0 18/03/2022



09:28 (8 minutes ago) ☆ ↶ ⋮

Hi Sophie

Thanks for the nudge!

Thorney Island Microlight Club has no objection to this TDA extension, particularly as Skylift's hours of operation have been further reduced to allow greater deconfliction from microlight operations. We hope that this extension will finally yield the desired results from the trials.

Hope this helps, let me know if you need any further information

Kind regards



Dear Alexander,

Thank you for your email below. As the British Microlight Aircraft Association (BMAA) Airspace Team stakeholder I liaise closely with the Thorney Island Microlight Club (TIMC) on this ACP, since they are our members most (but not exclusively) impacted by it. We also have a significant number of BMAA members based around West Sussex and Hampshire, including on the IOW who fly within the area.

We have followed this ACP since its inception. Whilst we all generally support assisting the NHS we have always had some concerns over this ACP, mainly with regard to safety for other airspace users. We have liaised productively with the ACP sponsor, Skylink UAV, on a number of occasions and the TIMC have a Letter of Agreement (LOA) with Skylink on integrating flying operations, modified following re-location of Skylink's operating location on Thorney Island airfield. Our current concerns are:

1. Moving the dates for the 60-day TDA extension to May-June is likely to have a greater impact on the TIMC flying, since they operate during the evenings Monday-Thursday; from midday on Fridays and at weekends/public holidays and with lighter, longer evenings at that time of year there is the potential for greater conflict. Whilst Skylink have always sought to plan to integrate with TIMC, so as not prevent the club's flying, we would stress that this is more important during your proposed re-located dates. We would therefore request confirmation of this continued cooperation.
2. We cannot support an open-ended requirement to activate this TDA. With now over 110 days TDA availability we understand it has only been activated on 5 occasions. It would seem that this project has not been prepared in time to utilise the requested TDAs. Significant time has been spent by other airspace users in understanding, responding to and monitoring this ACP and we are aware of the ongoing CAA resource it has required. We trust that the project will be sufficiently prepared to make full use of the TDA, should the move of dates be approved by the CAA.
3. It would appear that the UAVs to be used are significantly weather dependent. Storms in February were well forecast and did not occur on every day since 31 January. We are aware that the location of Skylink's base on Thorney Island airfield had to be re-located due, apparently, to turbulence interference with trees at their original location. This does raise questions over the performance of the system to cope with the stated aims of the project and its safety when operating in conjunction with other airspace users and also operating at extreme low levels across the very busy Solent maritime environment. So, what percentage of the 60 days extension are required to be within the weather performance of the UAVs to enable you to complete the trials? The November letter from the NHS IOW Trust indicated you require 60 days of continuous operation? Does this require operation on every day, including weekends/public holidays then?
4. Considering the inability to utilise over 110 days of TDA availability thus far we suggest Skylink publish a schedule of days and times for operations during the TDA extension to demonstrate they are sufficiently prepared to utilise any rescheduled TDA and enable our members to have a better idea of when to expect, and frequency of, UAV operations.
5. We would be interested to know what Apian and the NHS have learnt from the already-completed UAV trials in the name of the NHS in other areas of Britain, since we are continuously being asked to study and respond to numerous duplicating ACPs but, so far, have no feedback and wonder how many such trials it takes? Any advice here would be helpful. And can we expect to be advised of the results of this ACPs trials?

Best regards

Mon, 7 Mar, 12:51 (10 days ago)



Dear Adrian,

Thank you for responding to my email. We appreciate your feedback and understand that the delay to the TDA has raised a number of concerns for you and your colleagues at BMAA. We would like to reassure you that we are carefully considering how to minimise that impact and, for ease of reference, have answered your points directly below.

I would also like to reiterate that if you wish to discuss anything in more detail with myself or my colleagues at Apian, then we would be more than happy to arrange a time to do so.

Best regards,

Alexander

Dear Alexander,

Thank you for your email below. As the British Microlight Aircraft Association (BMAA) Airspace Team stakeholder I liaise closely with the Thorney Island Microlight Club (TIMC) on this ACP, since they are our members most (but not exclusively) impacted by it. We also have a significant number of BMAA members based around West Sussex and Hampshire, including on the IOW who fly within the area.

We have followed this ACP since its inception. Whilst we all generally support assisting the NHS we have always had some concerns over this ACP, mainly with regard to safety for other airspace users. We have liaised productively with the ACP sponsor, Skylink UAV, on a number of occasions and the TIMC have a Letter of Agreement (LOA) with Skylink on integrating flying operations, modified following re-location of Skylink's operating location on Thorney Island airfield. Our current concerns are:

1. Moving the dates for the 60-day TDA extension to May-June is likely to have a greater impact on the TIMC flying, since they operate during the evenings Monday-Thursday; from midday on Fridays and at weekends/public holidays and with lighter, longer evenings at that time of year there is the potential for greater conflict. Whilst Skylink have always sought to plan to integrate with TIMC, so as not prevent the club's flying, we would stress that this is more important during your proposed re-located dates. We would therefore request confirmation of this continued cooperation.

I can confirm that we plan to continue close coordination with TIMC and update the LOA accordingly to ensure the integration of operations. We understand that the BMAA members may be conducting more flying over this period, and therefore, as before, activation of the TDA will be restricted to the following times:

- Monday - Thursday 14:00 - 18:00
- Friday 10:30 - 14:30
- Sat/Sun or Public Holidays not activated

1. We cannot support an open-ended requirement to activate this TDA. With now over 110 days TDA availability we understand it has only been activated on 5 occasions. It would seem that this project has not been prepared in time to utilise the requested TDAs. Significant time has been spent by other airspace users in understanding, responding to and monitoring this ACP and we are aware of the ongoing CAA resource it has required. We trust that the project will be sufficiently prepared to make full use of the TDA, should the move of dates be approved by the CAA.

We are extremely grateful for the time spent on this project by other airspace users, the CAA and indeed the NHS. All the more reason to ensure that time has been well spent by delivering chemotherapy to patients. Yes, everything has been done to ensure that the project is sufficiently prepared to make full use of a delayed TDA.

Skylift's v50 drone has so far been successfully tested in winds of 10m/s. This limitation meets our project requirements. Concerning the requirement for 60 day of continuous operation, this takes into account the wind limits and TDA time windows previously mentioned, i.e. we will NOT be operating on weekends/public holidays.

1. Considering the inability to utilise over 110 days of TDA availability thus far we suggest Skylink publish a schedule of days and times for operations during the TDA extension to demonstrate they are sufficiently prepared to utilise any rescheduled TDA and enable our members to have a better idea of when to expect, and frequency of, UAV operations.

We welcome your excellent suggestion to publish a schedule of planned days and times for operations during the TDA extension and will work closely with Skylift and our NHS partners to complete this. This would be in addition to the NOTAM that is conducted 24hrs in advance of TDA activation.

1. We would be interested to know what Apian and the NHS have learnt from the already-completed UAV trials in the name of the NHS in other areas of Britain, since we are continuously being asked to study and respond to numerous duplicating ACPs but, so far, have no feedback and wonder how many such trials it takes? Any advice here would be helpful. And can we expect to be advised of the results of this ACPs trials?

This is entirely fair and we're more than happy to share our learnings. The first stage of the trial was conducted in collaboration with Southampton University and King's College London who have been researching the impact of drone flight (e.g. vibration and temperature) on redundant chemotherapy and found that the product remains stable throughout the drone flight. As a result, we have obtained approval from the NHS Pharmacy Manufacturing Unit to now deliver live chemotherapy to St Mary's Hospital, Isle of Wight. I will return to you with more details of the University research when it is published in the coming weeks. I will also continue to share the results of this project as it proceeds with your kind support.

[Redacted]

7 Mar 2022, 16:26 (10 days ago) ☆ ↶ ⋮

Dear Alex,

Thanks for your responses. We look forward to being kept apprised on the project.

Regards

[Redacted]

⋮

[Redacted]

8 Mar 2022, 08:57 (9 days ago) ☆ ↶ ⋮

Good Morning Alexander,

The MOD would like to thank Skylift for the engagement regarding the extension of the TDA in the subject line. The MOD have no objections to the extension of the TDA, **providing that the current access and activation agreements and protocols remain in place.**

Please do not hesitate to contact me if you require any further information.

Regards

[Redacted]

[Redacted]

8 Mar 2022, 10:04 (9 days ago) ☆ ↶ ⋮

Thank you for your support [Redacted] yes, the current access and activation agreements and protocols will remain in place.

⋮

[Redacted]

26 Feb 2022, 12:30 ☆ ↶ ⋮

Dear Sponsor

Thank you for your letter but I will NOT support yet another extension of your TDA.

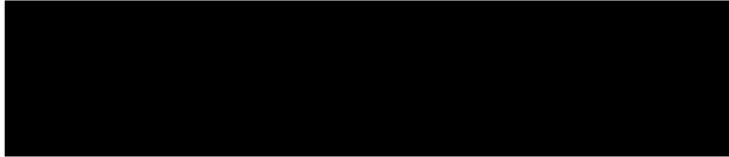
Kind regards

[Redacted]



Thu, 24 Feb, 18:41 ☆ ↶ ⋮

Hi Alex, no objections from me assuming the routing is the same and does not cross National Grid network, my original response is hopefully still valid.
John



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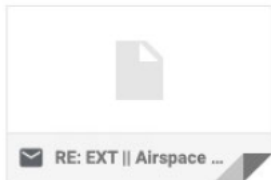


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[Redacted]

25 Feb 2022, 15:47 ☆ ↶ ⋮

The routing is the same, thank you very much for your support John.

[Redacted]

Hi Alex, no objections from me assuming the routing is the same and does not cross National Grid network, my original response is hopefully still valid.

[Redacted]

[Redacted]

Subject: [EXTERNAL] ACP-2021-002: BVLOS UAS Operations - Delayed Start

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[Redacted]

25 Feb 2022, 14:09 ☆ ↶ ⋮

Good afternoon Alexander,

You have our full support and good luck with everything.

In future please feel free to email me directly rather than the [Redacted] as this email address doesn't get checked on a daily basis and can get a bit back logged.

All the best,

[Redacted]

[rspb.org.uk](https://www.rspb.org.uk)

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The RSPB is the UK's largest nature conservation charity, inspiring everyone to give nature a home. Together with our partners, we protect threatened birds and wildlife so our towns, coast and countryside will teem with life once again. We play a leading role in BirdLife International, a worldwide partnership of nature conservation organisations.

The Royal Society for the Protection of Birds (RSPB) is a registered charity: England and Wales no. 207076, Scotland no. SC037654

25 Feb 2022, 14:20 ☆ ↶ ⋮



Good afternoon

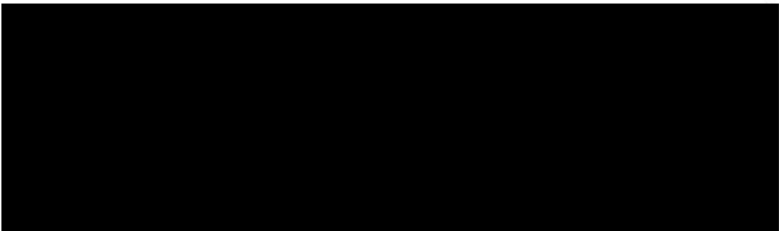
Southampton Airport supports the delay to the ACP-2021-002.

Regards



SouthamptonAirport

Southampton International Airport Ltd | Wide Lane | Southampton | SO18 2NL



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