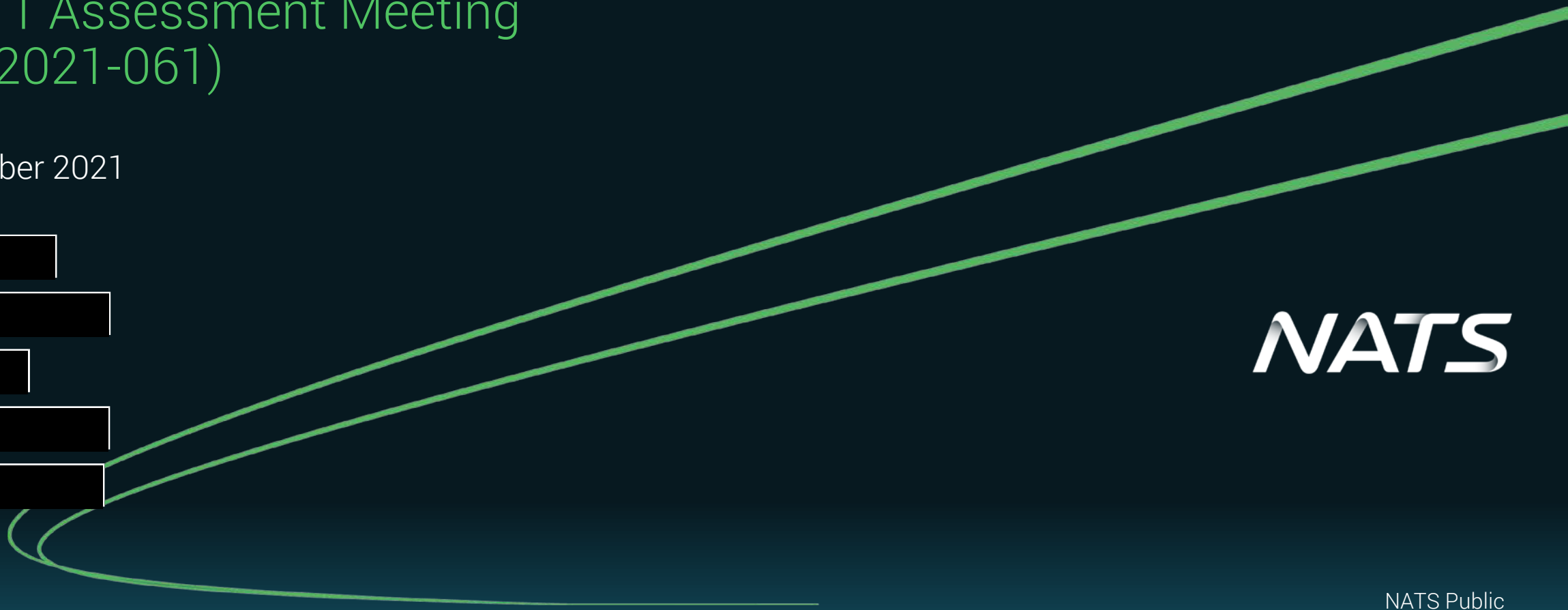
Operational Service Enhancement Project:- Improved connectivity through new and/ or amended ATS routes/ waypoints

‘OSEP- ATS Routes’

Stage 1 Assessment Meeting (ACP-2021-061)

11th October 2021

[redacted]



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Agenda

- Statement of Need
- Background
- Issues and benefits arising from proposed change
- How to address identified issues
- Provisional indication of the appropriate scaling level and notes re Process Requirements
- Draft Timescales and First Three Planned Gateway Assessments
- Next steps

Statement of Need

NATS Operational Service Enhancement Project (OSEP) will deliver small scale changes across NERL airspace between now and 2027. The changes will deliver benefits through enabled fuel/ CO2 savings, reduced routing inefficiency, safety improvements and alleviating capacity hotspots.

Cause
There are inbuilt inefficiencies within the UK ATS route network. One such inefficiency is caused through inefficient ATS routes or connectivity between ATS routes and neighbouring FIRs.

Current Situation
Aircraft currently flight plan in accordance with published constraints. As a result of inefficiencies and poor connectivity between some ATS routes within the UK network and FIR boundaries, aircraft are burning more fuel and emitting more CO2 than necessary.

Issues to be Addressed
This ACP seeks to improve connectivity between the UK ATS route network and adjacent FIR boundaries by introducing new and/or amended ATS routes, waypoints and/or COPs. This will enhance connectivity whilst improving fuel efficiency and reducing greenhouse gas emissions. This ACP will also seek to reduce pilot/controller workload where practicable by improving flight plan predictability.

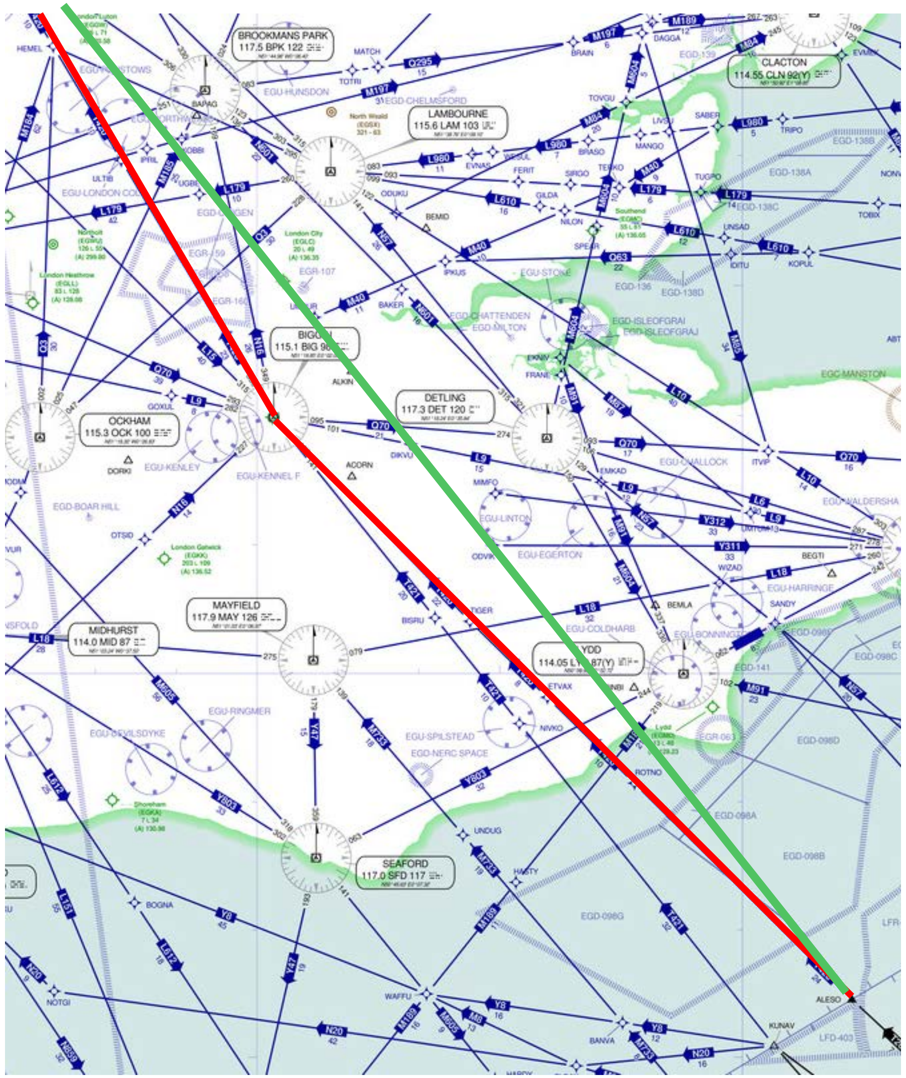
Background

- The UK ATS route network has been historically constrained by the use of ground based navigation aids.
- This has led to inefficient connectivity between ATS routes as well as restricted connectivity with neighbouring ANSPs
- As a result, aircraft are burning more fuel and emitting more CO_2 than required.
- Improvements in technology have removed these original design constraints which will enable these inefficiencies to be addressed.
- NATS are redesigning the airspace through the LAMP and FRA series of ACPs. However, the opportunity exists to introduce a series of small scale changes to benefit our stakeholders prior to LAMP and FRA being implemented.
- This work is being undertaken as part of the NATS Operational Service Enhancement Project (OSEP) which will deliver small scale changes across NERL airspace between now and 2027. The changes will deliver benefits through enabled fuel savings to customers, reduced routing inefficiency, safety improvements and alleviating capacity hotspots.

ACP Area

Concepts for development

Example Airspace ATS route change



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ATS route straightening

Straightening of an ATS route will provide:

- Reduction in track milage
- Reduction in fuel burn
- Reduction in CO_2 emissions

Straightening of an ATS route could provide

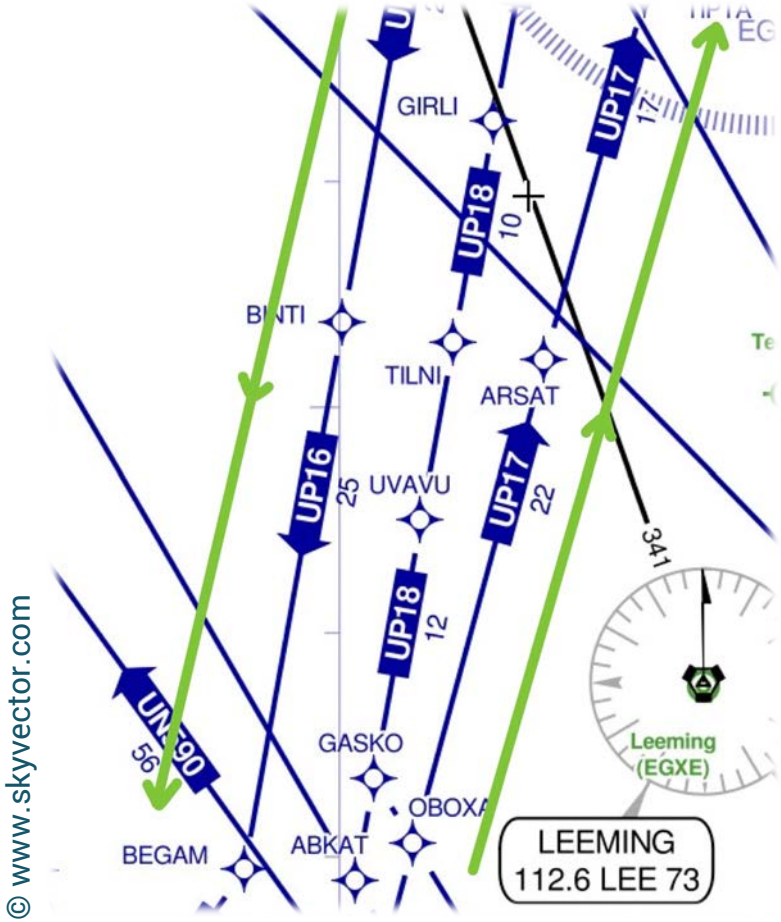
- Reduction in confluence of flights at a waypoint
- Capacity benefit through systemisation
- Replicates controller actions

Assumption H24 availability

Concepts for development

Example Airspace Systemisation

P18 NATEB – POL Systemisation



Lowering of UP16 and UP17

Replicates existing traffic Orientation

Provides systemisation benefits

Provides Flight Planning efficiencies

Opportunity to remove superfluous U Designators

Assumption H24 availability

Benefits

- Fuel savings
- Reduces routing inefficiency
- Reduces controller workload
- Alleviating capacity hotspots
- Enables other LTIP projects

Issues

- Stakeholder Fatigue
  - Engagement/Consultation
- Unknown airspace affected
- Options proposed below 7000 ft
- Alignment with existing ACPs
  - E.g. LAMP

Addressing the identified issues

- Stakeholder Fatigue
  - NATS are proposing three new OSEP ACPs all affecting similar stakeholders
  - Where able communication will be combined to limit stakeholder fatigue

- Unknown Airspace Affected
  - The OSEP project is looking at fundamental inefficiencies within the UK network, as such the same inefficiency could exist in more than one location.
  - Changes will only affect traffic above 7000 ft and therefore only airspace users will be impacted.
  - Engagement will be limited to ANSPs, NATMAC Top 10 airlines and MoD

- Options proposed below 7000 ft
  - As part of the OSEP project stakeholders are able to propose design options within the scope of the ACP for consideration.
  - Any option proposed which could affect traffic below 7000 ft will not be progressed.

- Alignment with existing ACPs
  - Stakeholders will be actively engaged so that changes will remain compatible with existing ACPs.

Provisional Scaling and Process Discussion

- Expectation of Level 2C
  - This ACP is for a series of changes at different levels at or above 7000 ft.
  - Options will largely reflect current tactical airspace use

- Options will be developed through engagement with stakeholders.

Draft Gateway Timescale

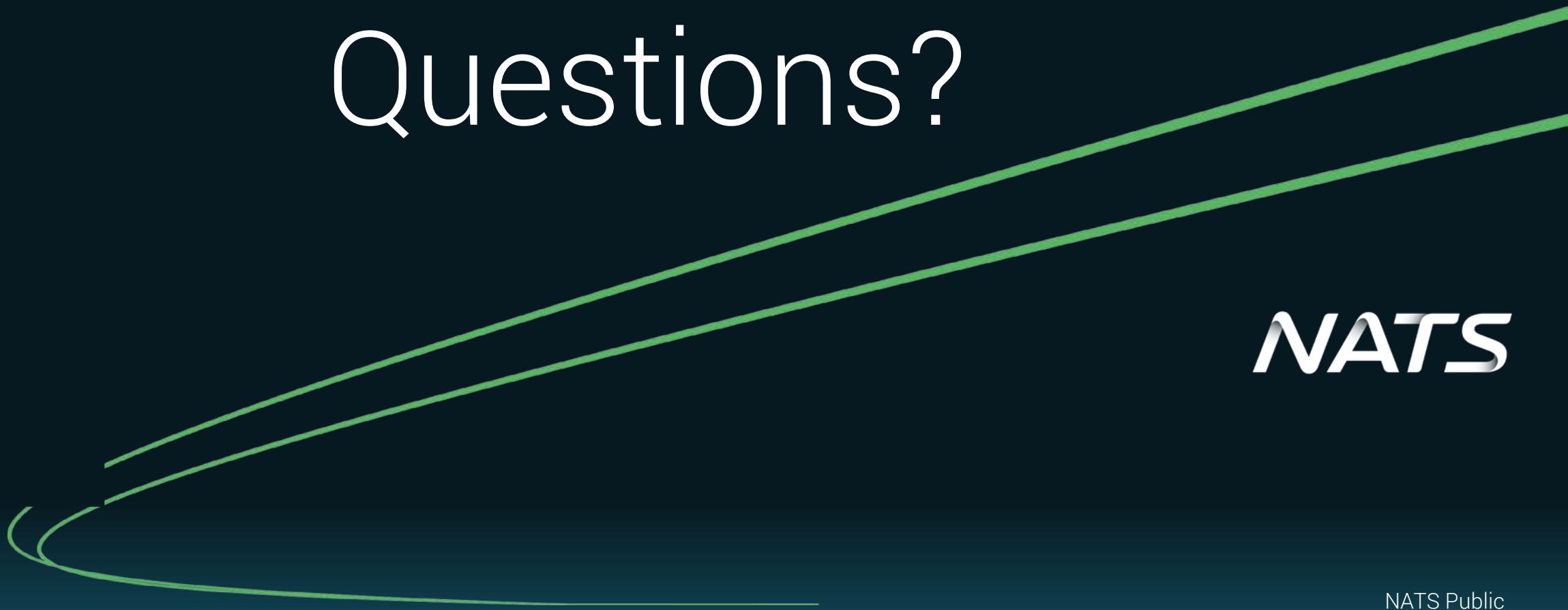
Stage	Date	Doc Deadline/ Submission	
Assessment meeting	11/10/2021		
Stage 1 – Define	28/10/2022	14/10/2022	
Stage 2 – Develop	16/12/2022	2/12/2022	
Stage 3 – Consult	24/02/2023	24/02/2023	(8 week Consultation)
Stage 4 – Update and Submit	06/07/2023		
Stage 5 – Decide	21/09/2023		
Stage 6 – Implement	Not before AIRAC 02 2024 (22/02/24)		

Engagement, and Next Steps

- Engagement will be Limited to:
  - Top 10 airlines[1]
  - Relevant NATMAC members
  - Relevant ANSP's
  - MOD
- Development work continues, to refine the concepts and fully define the scope
- Analytics work continues to corroborate benefits associated with these changes
- Plan to engage Stakeholders through various forums
- Continue ACP through CAP1616 process

1- Top 10 airlines are based on 2019 traffic with "ceased operation" airlines removed. These 10 airlines accounted for >62% of the 2019 UK Air traffic

Questions?



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