

FASVIG 4
16th September 2014
CAA, Kingsway, London

Minutes

Attendees

Mark Batin	RIN
Edward Bellamy	PPL/IR
John Brady	GAA (Co-Chair)
Bob Darby	AOPA/ECWG
Steve Forward	UKAB
Rob Gratton	CAA
Sqn Ldr Andrew Gray	SO2 Safety Policy & Regulations JHC
Tom Hardie	BHPA
Tim Hardy	FAS DSG (Co-Chair)
Steve Hutt	FASVIG Programme Coordinator
Nick James	Manager ATC Birmingham
Deepak Mahajan	Damyns Hall
Sqn Ldr Sam Martin	HQ 1Gp SO2 A5
Chris Mitchell	LAA Yorkshire
Andrew Morton	Manager LAMP Development NATS
Timothy Nathan	PPL/IR
Jonathan Smith	NATS
Jim Walker	SARG Airspace Business Coordinator
Philip Whiteman	Pilot Magazine
John Williams	BGA

Introduction and Aim (John Brady – FASVIG Co-Chair)

- Vision
 - Safe, efficient airspace that has the capacity to meet reasonable demand, balances the needs of all airspace users and mitigates the impact of aviation on the environment
- Objectives
 - To provide a sustainable future for VFR
- Objective for Today's meeting:
 - How do we make it happen?

Where are we? (Tim Hardy – FASVIG Co-Chair)

- Three work stream leads
 - John Williams – Airspace and Procedures
 - Tom Hardie – Government and Regulation
 - Ed Bellamy – Information Technology and Communications
 - Addressing safety as a transversal activity
- In place
 - Vision/Objectives/Leadership/Programme Management/Work Breakdown Structure
- 'Planning the Plan' is not yet complete
 - Need to move on to deliverables, milestones, gateways, risk, implications
- Assistance and support
 - Engagement – MOU to be addressed
 - Work stream leads need support of other volunteers

Programme Management (Steve Hutt – FASVIG Programme Coordinator)

- Use of new facilities introduced to improve remote working
 - Dropbox for data (file) sharing

- Powwownow for conference call facility
- Wiki for collaboration
 - Open to further ideas to address needs or difficulties
E.g. access restrictions for military participants
Is Huddle be better? Affordable (\$500pm min)
- Logos still needed from everyone other than CHIRP and BHA (already provided).
- Will be resending draft MOU and chasing for return.
- CAA website to have details of FASVIG
- Will be offering access to working info to wider members of the community
 - Will require acceptance of invitation
- Implementation Plan will probably go out to consultation
 - Date T.B.D. 6 week consultation / CRD / Response Document

Electronic Conspicuity Working Group (Bob Darby – AOPA)

- Tasking/TORs. (ASICG Paper, Jan 2011)
 - *In response to AAIB Report 5/2010: "... accident between Grob G115E (Tutor) and Standard Cirrus Glider at Drayton, Oxfordshire on 14 June 2009"*
 - *"to consider the requirements and benefits for electronic conspicuity between GA users in Class G airspace to contribute to flight safety through enhanced situational awareness"*
 - *"To identify options, technical issues and funding opportunities"*
- Member Organisations - BBAC/BHPA/BGA BMAA/LAA/AOPA/BHA/NATS
- Activity - 12 months work, 5 meetings, 8 presentations
- Deliverables
 - ASI ECWG Recommendations Paper: Electronic Conspicuity in Class G Airspace
 - EC Project Management Plan (SARG)
- Recommendations
 - To encourage voluntary equipage, device must be
 - Cost effective
 - Provide a definable benefit to the user
 - Must not hinder current ways of operating
 - The EC requirement is scalable in 3 main categories:
 1. Basic device: transmit only with no alerts to the carrier
 2. Intermediate device: transmit/receive device with minimal interoperability and audible/visual alerts
 3. Full device: transmit receive device interoperable with other air and ground safety nets with visible and audible alerts
 - Universal Requirements
 - Light weight / Low bulk.
 - User friendly: easy to operate/minimal inputs during flight/minimise "heads down"
 - Appropriate antenna fit: easily achievable and appropriate to the aircraft.
 - Portable: from one aircraft to another easily.
 - Voluntary equipage / Minimal regulatory requirements.
 - Additional requirements
 - Aural alerts / Visual alerts.
 - Low cost: most basic device £250 ...
... with additional functionality at additional cost.
 - Cockpit mountable or user carried.
 - Self-contained. Power options: battery (12 hours) or internal power.
 - Can operate close to handheld radios.
 - Full weather proofing and low temperature.
 - Operable when wearing ski gloves.
 - Industry Standard
 - Most basic ADS-B technology
 - Portable, transmit-only device using ADS-B technology carried inside the aircraft.

- Transmitter accuracy and integrity metrics must report 'zero' unless the 3D position and velocity are obtained from a certified or approved GNSS source.
 - The downlink format must indicate that the device cannot be interrogated, i.e. it is a 'non-transponder device' (DF18).
- Regulation aspects
 - Guidance: CAA approach to UK approval of VHF handheld radios.
 - ADS-B transmit requirements concentrating on interoperability and reduction of hazards.
 - Suitable requirements captured from existing regulations
- Way Forward
 - Launch of CAA EC Project - September 2014
 - Described in accompanying Project Management Plan (PMP)
- Project Management Plan - DfT Funding of £300K, covering:
 - Research into the use of uncertified GPS devices including the connectivity of uncertified COTS portable GPS devices to ADS-B OUT capable transponders and the regulatory enablement thereof.
Query on regulatory status of connecting certified GPS to certified transponder?
 - Research potential interference issues with EC devices.
 - Research interoperability issues for EC devices; both operational and regulatory.
 - Research potential options for Camera Based (both visual and infrared) technology.
 - Development, testing and analysis of prototype EC device.
- Related activity
 - FAA - LASE (Light Aviation Surveillance Equipment)
 - NATS - Low Power ADS-B Transceiver (LPAT)
 - SESAR
 - EVA Project (Electronic Visibility via ADS-B)
 - Large Scale Demonstration
 - NATS-led consortium with AOPA, Funkwerk, Trig
 - FASVIG A.3.4 "ADS-B out implementation"
- Summary
 - Options Paper recommends:
 - ADS-B on 1090 MHz as the most promising approach
 - DTI-funded Programme of Work concentrating on ADS-B, to be initiated soon.
 - Imminent delivery of NATS LPAT prototype
 - Kick Off Meeting of SESAR EVA Project - Brussels, 26th September
 - FASVIG A.3.4 "ADS-B out implementation"

LAMP (Mark Morton - NATS)

- Fundamental redesign of LTMA
 - Ph 1a 2015
 - Ph 1b 2016/17
 - Ph 2a late 2018 (Heathrow, rest of Gatwick + South)
 - Ph 2b Late 2019 (Stansted, Luton & North)
- Transition Altitude initially to 6000ft then 18,000ft in Nov 2017
- Airspace control
 - Above 7000ft – LAMP
 - Below 4000ft – Airport
 - Between 4000ft and 7000ft – varies, can be either
- Climb gradients
 - 90% of traffic achieve 7% gradient
 - 10% of traffic achieve 5% gradient
 - Current airspace designed around 2% to 3% gradient
- CCOs/CDOs
- PBN / RNAV1
- Environmentally sustainable

- Elimination of stack holding
- No NPR changes ahead of General Elections - but trials ok
- Public Consultation in 2015 after AC decision and general election
- Holds are raised to enable CDOs
- Give back airspace
- **FASVIG specific questions**
 - **Invitation to Stakeholder Forum in November 2014 - who from GA?**
 - **Impact on Class G, benefit for Class G?**
 - **Impact on Farnborough (to implement at same time as LAMP), Southend ACPs**
 - **GA LAMP requirements document?**
 - **Julian Scarfe's input?**
 - **What has gone to NATS LAMP in the name of GA?**

Feedback from Break Out Sessions (Reviewing 'Packages of Change')

- See separate FASVIG 4 - Minutes Breakout Session Feedback document

Learning and Next Steps

- Call for volunteers to support work streams
 - Bob Derby (AOPA), Timothy Nathan (PPL/IR)
 - Others required.

Next Meeting

- To be confirmed