SATCOM – THE AIRLINES OPERATIONAL PERSPECTIVE

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EASYJET AND IRIS

> Currently operating 325 A320 series aircraft with AOCs in the UK, Switzerland and Austria.

> 154 airports, 35 countries, 981 routes

> easyJet's participation in the Iris project recently confirmed.

> 10+ aircraft planned to be equipped with LCS system.

> LCS will be delivered on new easyJet aircraft from Airbus starting in November 2022.

> easyJet will operate commercial flights using Iris for FANS C / CPDLC (subject to necessary approvals).

> Tests and trials will be conducted to evaluate AOC benefits utilising integrations with FOMAX.

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WHY DO WE NEED TO MODERNISE AIRCRAFT COMMS?

> easyJet suffered from nearly 2,000,000 minutes of delays associated to ATC capacity in 2019.

> 18% of all easyJet flights in 2019 suffered from an ATC related delay. 51% of those delays were due to capacity.

> SESAR initiatives such as FANS C / i4D should help in reducing these delays, acting as an enabler to an increase in ATM capacity and more efficient routing for airlines.

> Current aircraft communications systems don't seem to have the bandwidth to handle FANS C / i4D traffic, as well as ever increasing airline AOC data requirements.

> In addition to increased bandwidth for ATM, the IP connection from next-gen aircraft comms systems could act as an enabler for new AOC applications to further improve airline operations.

> Security

However! Investment in technology by airlines is not the complete cure to improved capacity and establishing future growth.

In addition to new communication systems, member states need to provide more efficient airspace structure and working practices to ensure a more sustainable approach to flight planning and ATC.

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WHY SATCOM?

> Satcom is an established technology which has been utilised by oceanic airlines for a number of years.

> Inmarsat SB-S network is already deployed globally and certified for datalink usage in NAT region.

> Subject to approval for ATM usage in Europe, this could result in a single system that allows airlines to operate within Oceanic and Continental airspace.

> 200kbps bandwidth on an A320 single channel system. Over 6 x higher than VDLm2.

> A satcom solution can deployed relatively rapidly by ANSPs

> Large scale deployment of ground infrastructure across Europe not required

> Data coverage in areas which were previously disconnected

> Enhanced security of communications via VPNs & PKI

THE CHALLENGES

> Equipping aircraft will be a substantial investment for operators

> Airlines will want to see a clear strategy and know there will be benefits before investing

> Is there a risk to early adoption? Will airlines invest in satcom only to then require further investment in other technology such as LDACs or AEROmacs?.

> Will a business case be strong enough to retrofit? If not will deployment at scale and therefore the benefits be slow to be seen?

> Will airlines see increased navigation charges in addition to the significant hardware investment?

Previously, airlines that have been first to equip with new technologies have ended up carrying equipment where they cannot gain an operational benefit until ANSPs equip or change working practices.

We need to see ANSP's leading this change, so that more airlines are encouraged to equip to a higher standard, bring more efficient use of capacity and deliver carbon savings through shorter and more efficient routes.

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