

IRIS

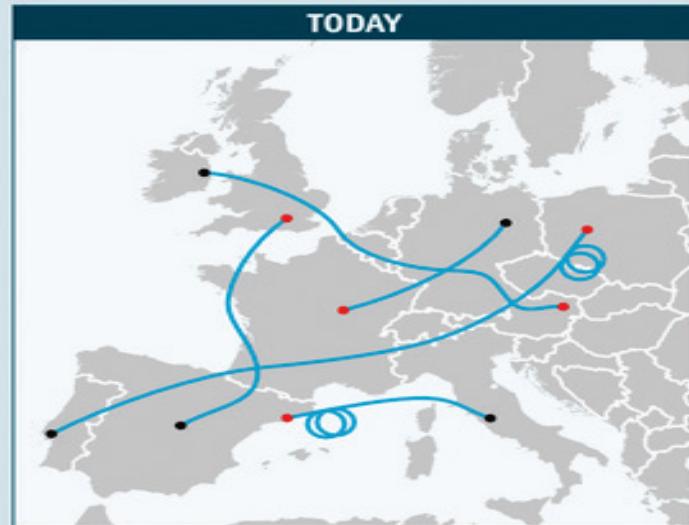
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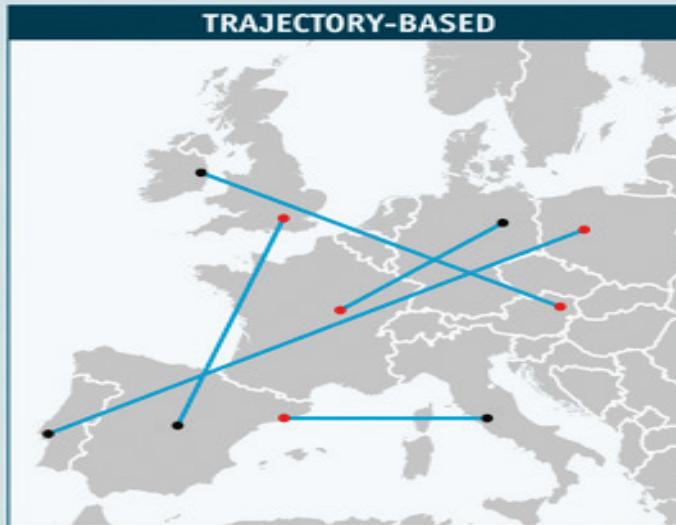
4D trajectory management

Smarter skies

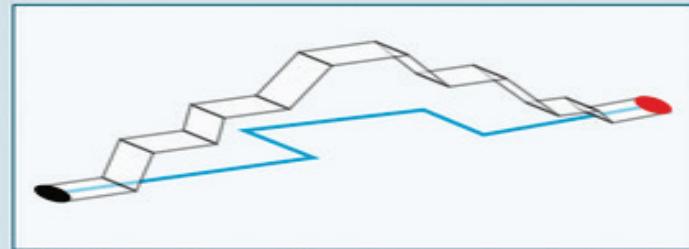
Effect of trajectory-based air-traffic management



Flight paths follow historic routes and often involve stacking

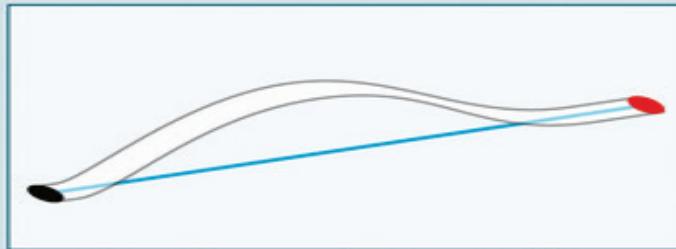


Free-routing is possible, reducing fuel consumption and CO₂ emissions

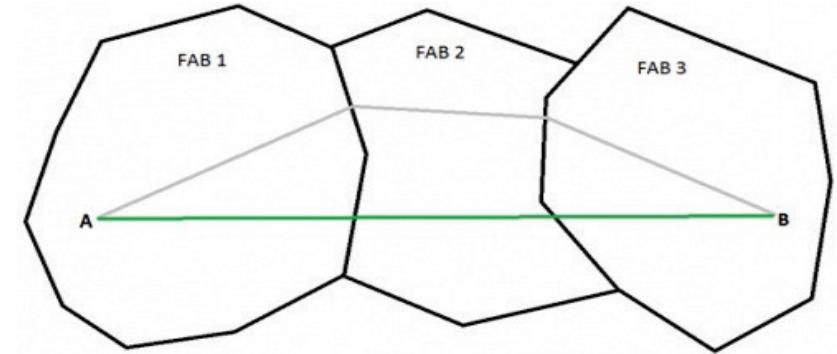


Flight levels given to pilots by controllers during the flight

Sources: INDRA; *The Economist*



A smoother trajectory requires less controller intervention



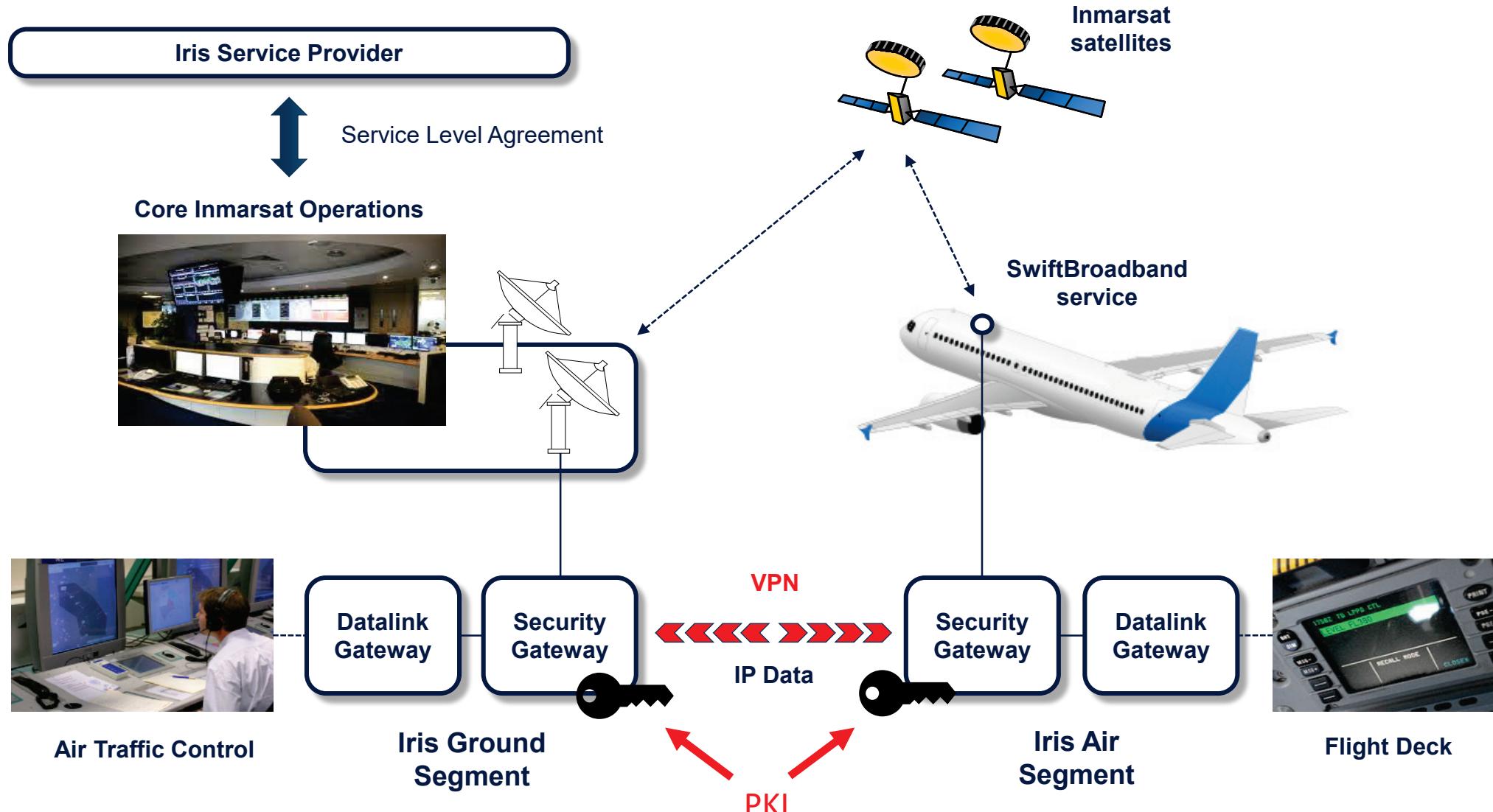
Enabling technology:

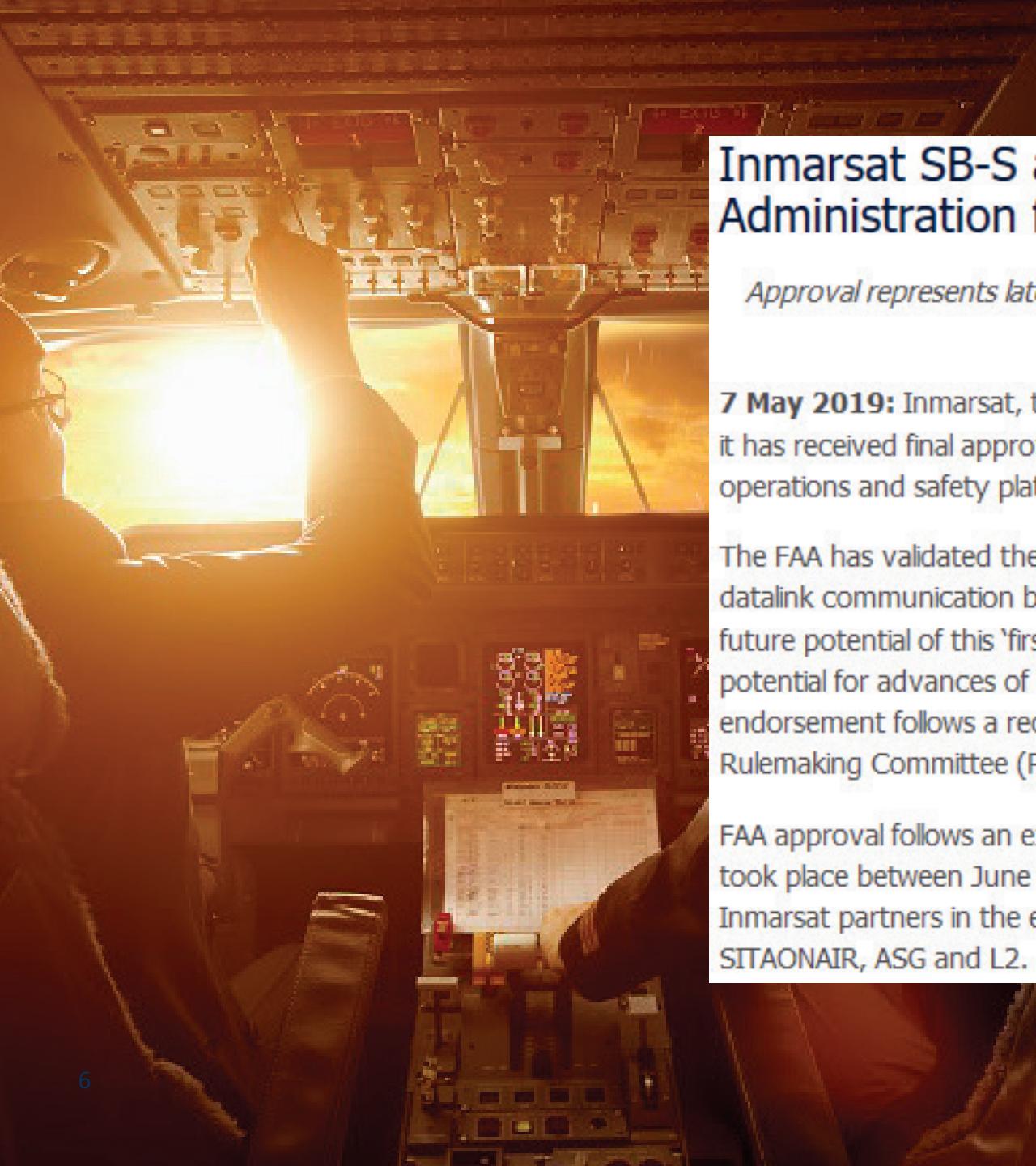
- ADS-B/ADS-C:
- CPDLC
- SWIM
- "The connected aircraft"
 - AeroMACS
 - LDACS
 - SATCOM (**Iris**)

Iris: A SATCOM system for 4D trajectory management



Iris architecture





Inmarsat SB-S approved by U.S. Federal Aviation Administration for operations and safety communications

Approval represents latest official endorsement of the world's first and only IP connectivity solution for digital aircraft operations and safety

7 May 2019: Inmarsat, the world leader in global mobile satellite communications, today announced that it has received final approval from the U.S. Federal Aviation Administration (FAA) for its SB-S digital airline operations and safety platform.

The FAA has validated the capability of Inmarsat SB-S to support air traffic services by providing direct datalink communication between pilots and Air Traffic Control (ATC). The letter of approval highlights the future potential of this 'first-of-its-kind' service, stating that SB-S technology "provides diversity and potential for advances of capability that will further maximise operational benefits and ensure safety". The endorsement follows a recommendation last year from the FAA's Performance Based Operations Aviation Rulemaking Committee (PARC).

FAA approval follows an extensive live evaluation of SB-S by Hawaiian Airlines and United Airlines, which took place between June 2015 and July 2018 on approximately 25,000 flights and seven aircraft types. Inmarsat partners in the evaluation included Cobham Aerospace Communications, Collins Aerospace, SITAONAIR, ASG and L2.

Inmarsat press release 7 May 2019



<https://infosec.sintef.no/en/>