

## INFORMASJON FRA ATM NORGE

Nyhetsbrev - Februar 2021

### *Nytt fra Avinor AS*

#### **Viktig milepæl nådd for ny lufthavn Bodø: Forprosjektet godkjent.**

I en pressemelding den 16.2.2021 15:00:00 skriver [Avinor](#) :

Avinor har nå ferdigstilt forprosjektet for ny lufthavn i Bodø, og oversendt grunnlaget til Samferdselsdepartementet for gjennomføring av kvalitetssikring (KS2) i statlig regi og statlig beslutningsprosess.



Illustrasjonsfoto: Avinor

I forprosjektet er løsningene for ny lufthavn detaljert, basert på det utbyggingsalternativet som Regjeringen besluttet høsten 2020. Den nye lufthavnen skal etableres ca. 1 km sør-vest for dagens lufthavn i Bodø.

Lufthavnen blir topp moderne med de nødvendige strukturer som skal til for å dekke regionens behov. Og ikke minst vil etableringen av en ny lufthavn frigjøre et stort areal til byutvikling som er det prosjektutløsende behovet for prosjektet.

Den nye lufthavnen vil også sikre en vesentlig redusert støybelastning for byen som følge av at flyplassen flyttes vel 1 km sørvest og i tillegg blir liggende i le av Rishaugen.

**Hele meldingen kan leses:** [her](#)

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## **Avinor Flysikring og Frequentis er vinnere av internasjonalt anerkjent pris**

I en pressemelding den 12.2.2021 11:25:08 skriver [Avinor Flysikring AS](#):

Bransjemediet Air Traffic Management Magazine har tildelt Avinor Flysikring og Frequentis den prestisjetunge prisen Air Traffic Management Award 2020 i kategorien “ATM/UTM Integration” for måten selskapene sammen har klart å integrere droner i norsk luftrom. Juryen anerkjenner måten selskapene har oppnådd bedre situasjonsforståelse for dronetrafikken i luftrommet, samt en mer effektiv kommunikasjon mellom dronebrukere og flygeledere i kontrolltårn ved lufthavner.

Avinor Flysikring satte i gang satsingen på et helt nytt dronesystem i 2020, og gikk inn i et samarbeid med østeriske Frequentis. Målet med satsingen er å sørge for et brukervennlig dronesystem for brukere, samt en mer effektiv godkjenningsprosess for flygeledere. Totalt sett sikrer dette en tryggere integrasjon av droner i kontrollert luftrom, i takt med det raskt økende tallet på dronebrukere i Norge.



-Dette er et nybrottsarbeid innen norsk luftfart, og til tross for COVID-19 har vi lyktes med å teste og utvikle det nye dronesystemet – Ninox Drone – på tvers av landegrenser ved bruk av digitale hjelpemidler. Vi er naturligvis fornøyde med at juryen til *Air Traffic Management Award* har lagt merke til innsatsen som har blitt lagt inn i det nye systemet, og anerkjenner at man allerede i tidlig fase av utrulling ser ut til å oppnå målene for Ninox Drone-systemet. Det har vært viktig for oss at systemet skal være brukervennlig og lett tilgjengelig for den enkelte dronebruker. Dette har vi oppnådd ved å ha en app tilgjengelig for både for Android og Apple sin iOS-plattform. Samtidig er det viktig for oss at systemet skal gjøre arbeidshverdagen enklere for flygeledere. Systemet tillater at de kan godkjenne forespørsler om dronetrykninger digitalt i stedet for via telefon, og sende direkte meldinger til dronebrukere rundt lufthavner dersom det er behov for det, sier Axel Knutsen, leder for droneprogrammet i Avinor Flysikring.

-Systemet er allerede i operativ test ved seks kontrolltårn i Norge. Det sørger for god situasjonsforståelse av droner og flytrafikk i samme luftrom og åpner for direkte kommunikasjonsmuligheter mellom flygeledere og dronebrukere, som sikrer trygge operasjoner. Vi er glade for å kunne jobbe sammen med Avinor Flysikring i implementeringen av det første dronesystemet i Norden, sier Guenter Graf, Vice President for UTM i Frequentis.

Ninox Drone-systemet er i testfase ved lufthavnene i Alta, Bodø, Kirkenes, Kristiansund, Lakselv og Tromsø, og skal i løpet av 2021 ruller ut ved alle de 17 lufthavnene hvor Avinor Flysikring drifter kontrolltårnene. Avinor Flysikring håndterer om lag 10.000 dronetrykninger i året innenfor 5 kilometer-sonen rundt lufthavner. Det er i dag ca. 400.000 dronebrukere i Norge.

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## *Nytt fra Jotron AS*

### **Marshall project – Transforming Air Traffic Management (ATM)**

**Marshall has been a long and exciting project for Jotron now nearing completion in 2021.**

In December 2020, NATS received the factory acceptance testing documentation for the recorders to be delivered to RAF Leuchars and RAF Kinloss. This completed the delivery of yet two more recorders for the Marshall project. A little over five years ago, the first recorder was delivered to RAF Shawbury, in October 2015. Delivery of these last two recorders marks the final delivery of all 45 recorders in total. With only some smaller projects remaining, scheduled for delivery early in 2021, Marshall has been a long and exciting project for Jotron now nearing completion.



(Photo: Jotron employees Casper Schumacher (left) & Jahn-Otto Ødegaard (right) standing with Jotron equipment)

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*Under ATM konferansen i 2019 var ubemannet luftfart for første gang tatt inn i programmet. Vi ønsker derfor å gi noen innblikk i de utfordringene ATM står overfor med kontroll av ubemannet luftfart:*

### **Selvstyrt luftfart kommer – nå bygges «luftens motorveier»**

Autonome, effektive og raske UAM-løsninger (UAM : Urban Air Mobility) utvikles nå for droneoperasjoner, flygende taxier og varebiler. Dette var bakteppet da Campus Kongsberg inviterte til et «fag-webinar» i forbindelse med en prosjektide som ledes av Kongsberg kommune, Oslo kommune og Universitetet i Sørøst-Norge.

Prosjektet har sitt utspring i en samarbeidsavtale som er inngått mellom Oslo kommune og Toulouse by. Toulouse er med sin luftfartsindustri sentral i europeisk UAM-utvikling, og norske aktører kan derfor dra nytte av og kobles sammen med tilsvarende europeiske FOU-aktiviteter.

Planen er å kartlegge/utrede operasjonelle aspekter ved denne nye teknologien for å få i gang en norsk industri og skape nye arbeidsplasser.

Mer om webinarret og presentasjonene kan leses [her](#).

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**News from Momberger Airport Information** - [www.mombergerairport.info](http://www.mombergerairport.info)

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**PANSA, the Polish ANSP, has signed an agreement with Indra to implement the iTEC system in the new Control Centre in Poznan, thus giving a decisive boost to the creation of the future European Digital Sky in the region.**

The contract is worth EUR 36 million and includes the commissioning in 2024 of a contingency centre prepared to undertake the operations of any air control centre in Poland if necessary. This centre will be equipped with a next generation iTEC system, iTEC v3, which will natively incorporate solutions that meet the requirements of the SESAR Program and the European Commission's 'Architecture Airspace Study'. The system will be built on an architecture based on Virtualised Data Processing Centres, running on a private cloud, and will incorporate new digital and automation tools as they are validated. This technology enables the progress towards efficient and borderless air traffic management in Europe. The iTEC system is based on the calculation of trajectories in four dimensions, which allows it to follow the aircraft flight profile with great accuracy to manage it optimally. This improves punctuality and efficiency, reduces emissions and cuts operating costs. PANSA President, Janusz Janiszewski, commented: "iTEC Collaboration is an ATM game changer. Implementing iTEC solutions will bring us to a new era of digitalized and virtualized Air Traffic Management and all its benefits. This step will be a technological leap not only for Poland but for the whole Europe. PANSA shall be the first ANSP to use the iTEC v3 pathfinding platform for its further development. The research and development works are going to be continued at PANSA modern contingency centre in Poznań to reach the final version of iTEC v3." The development of this centre is the result of a shared effort by seven of the main ANSPs on the continent – DFS (Germany), ENAIRE (Spain), NATS (United Kingdom), LVNL (Netherlands), Oro Navigacija (Lithuania), **AVINOR (Norway)** and PANSA, together with **Indra**. The control centres in Karlsruhe in Germany and Prestwick in Scotland were the first to implement and operate iTEC. PANSA will now become the first partner of the iTEC Alliance to deploy iTEC v3 - the next generation of this system, which will be put into operation throughout Poland over the next few years, making a smooth transition from its current PEGASUS 21 system, also developed by Indra. PANSA also assumes a leading role in expanding the concepts of the Single European Sky to Eastern Europe. #1136.ATC4

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**The last of six Airways TotalControl tower simulator sites for Avinor Air Navigation Services in Norway has gone live, concluding a complex eight-month project with an innovative approach to delivery.**

With the Airways International Ltd (AIL) and Avinor teams working thousands of kilometres apart and travel restrictions in place due to Covid-19, collaboration between AIL and Avinor was vital. To meet project deliverables within tight timeframes, the Covid-19 mitigation strategy successfully used at Oslo Airport was extended to all remaining sites. The final tower simulator to be installed and commissioned was at Stavanger Airport in Sola on 16 December. The tight timeline of a December completion and the scale of the project were challenging, with the Covid-19 pandemic adding extra complexities. An agile approach and close collaboration with

Avinor were necessary to deliver six large tower and four surveillance simulators across six sites throughout Norway, with 17 aerodrome environments in total. The project also includes six mobile simulators, and a five-year contract has been signed for simulator licence, support, and maintenance. AIL's simulator specialists guided Avinor technicians through the installation of hardware, and simulator user training was delivered remotely via the Airways Knowledge Online (AKO) virtual academy. Site acceptance testing was led by Avinor in Norway, with seamless engagement by AIL staff remotely. TotalControl is an advanced simulation platform, and a key aspect of the project was the centralised simulator pilot site at Trondheim Airport in Værnes (TRD) which enabled remote simulator pilots to participate in training for all six simulator sites across Norway. #1135.ATC4

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## **UAS/UAV Operation**

**With the further enhancement of unmanned aerial vehicles (UAVs) and air taxis in the rapidly growing drone market comes the need for the evolution of technologies and framework conditions for their safe coexistence with manned aircraft.**

The SESAR JU project "GOF 2.0 Integrated Urban Airspace Validation", with a consortium of 13 members, will focus on the safe, secure, and sustainable integration of unmanned aerial vehicle and air taxi operations in urban airspace. The follow-up to the SESAR JU Gulf of Finland (GOF) U-space project, which successfully demonstrated the safe airspace integration of unmanned aerial vehicles in summer 2019, will go a step further and test unmanned aerial vehicle flights specifically in urban airspace over the next two years. The integration of unmanned traffic management (UTM) into air traffic management (ATM) systems was already the focus of the SESAR JU research project GOF U-space, which successfully tested U-space services in seven advanced live trials with 11 unmanned and manned aircraft operators. The trials, both in controlled and uncontrolled airspace, and below as well as above 500 ft in urban, rural, and maritime environments, demonstrated that an integrated environment where manned and unmanned aviation share the same data will improve situational awareness and safety. The work leading up to the advanced flight trials highlighted the importance of building a scalable U-space

architecture and ensured that the technical environment relies on international standards using system wide information management (SWIM) principles. The GOF U-space project also underlined the fact that it is equally important to ensure that the market is interoperable and open, with authority oversight to enable easy sharing of safety-related information. Building on the key learnings and results of this project, SESAR JU GOF 2.0 now intends to demonstrate operational validity of serving combined unmanned aerial systems (UAS) safely, securely, and sustainably, electric vertical takeoff and landing (eVTOL), and manned operations in a unified, dense urban airspace using existing ATM and U-space services and systems. The demonstrations will focus on the validation of the GOF 2.0 architecture for highly automated real-time separation assurance in dense airspace, including precision weather and telecom networks for air-ground communication. This will significantly contribute to understanding how the safe integration of UTM and other commercial drone operations into ATM airspace can be implemented without degrading safety, security, or disrupting current airspace operations.

#1138.ATC8

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