



INFORMASJON FRA ATM NORGE

Nyhetsbrev September 2020

2020 har ikke blitt helt som vi hadde håpet, men etter en lengre “Coronapause” vil vi nå starte opp igjen nyhetsbrevene fra ATM Norge. Vi registrerer at mye positivt har skjedd også i denne pausen, og vi er glade for på nytt å kunne bringe interessante nyheter fra norsk ATM industri.

Nytt fra ACAMS AS

First ACAMS System to Australia

ACAMS to supply a complete mobile I-Tower solution to Rohde & Schwarz Australia, for the TAOT modernization program of the Royal Australian Air Force (RAAF).

ACAMS has won a contract in Australia to supply a complete mobile I-Tower solution to Rohde & Schwarz Australia, the prime contractor for the Transportable Air Operations Tower (TAOT) modernization program for the Royal Australian Air Force (RAAF).

The TAOT is used by the RAAF to provide an air traffic control capability which is deployable anywhere in the world to support Australian Defence Force (ADF) operations.

The following modules and functions are included in the ACAMS solution:

- Auxiliary Control for Airfield Lighting, Crash alarm, and Hook-wire and Barrier
- Meteorological Information Display
- Electronic Publications
- Data Logging and DB Viewer
- Airport Terminal Information Service (ATIS)
- Flight Strip Display and Printing

See also [video from Australian](#) government describing Transportable Air Operations.



ACAMS strengthens its presence in Sweden!

ACAMS strengthen its presence with new ALCMS contract to Swedavia Åre / Östersund CAT III airport in Sweden.

After a successful delivery of an ALCMS (Airfield Lighting Control and Monitoring System) with extensive technical monitoring capabilities, to Skellefteå Flygplats in 2019, ACAMS is now supplying another ALCMS solution to Sweden, to Östersund, Åre Östersund Airport.

The contract is with the Swedish airport operator Swedavia, which operates 10 airports in Sweden. In conjunction with a planned redesign of the Åre Östersund Airport, the airport will be upgraded to CAT III. The ACAMS control and monitoring system will play an important role in this process.

ACAMS will supply the systems as a main contractor with support of the Swedish technical provider Envico.

The system is expected to be fully installed by the end of 2020.

Nytt fra AVINOR AS

Avinor møter høstferien med lave passasjertall

De neste to ukene avvikes det høstferie rundt omkring i Norge. På Avinors lufthavner forventer man likevel svært få reisende sammenlignet med tidligere år.

- Selv om vi går inn i en periode som normalt sett gir en betydelig økning i antall passasjerer, ser vi at trafikkøkningen som kom i sommer har stoppet opp. Høstferien ser ikke ut til å bli noe unntak, og vi forventer at de lave trafikk tallene vil stabiliserer seg på dette nivået utover høsten, sier direktør for trafikkutvikling i Avinor, Gaute Skallerud Riise.

På Norges hovedflyplass vil man i forbindelse med høstferieutfarten passere i overkant av 25000 reisende enkelte dager. Dette er et svært lavt antall sammenlignet med 2019, hvor tallene lå på over 100 000 passasjerer på de travleste dagene.

Hele pressemeldingen kan leses [her](#)

Avinor-sjefen: Alle norske flyplasser kommer til å bli fjernstyrte

I en lengre artikkel i E24 den 29. august i et intervju med Administrerende direktør Dag Falk-Petersen i Avinor og administrerende direktør Anders Kirsebom i Avinor Flysikring, kunne vi lese at det høyteknologiske Remote Towers Center (RTC) i Bodø åpner i oktober. Dette har vært Avinors prestisjeprosjekt gjennom de siste åtte årene og skal etter planen fjernstyre 15 forskjellige flytårn rundt om i Norge innen 2022.

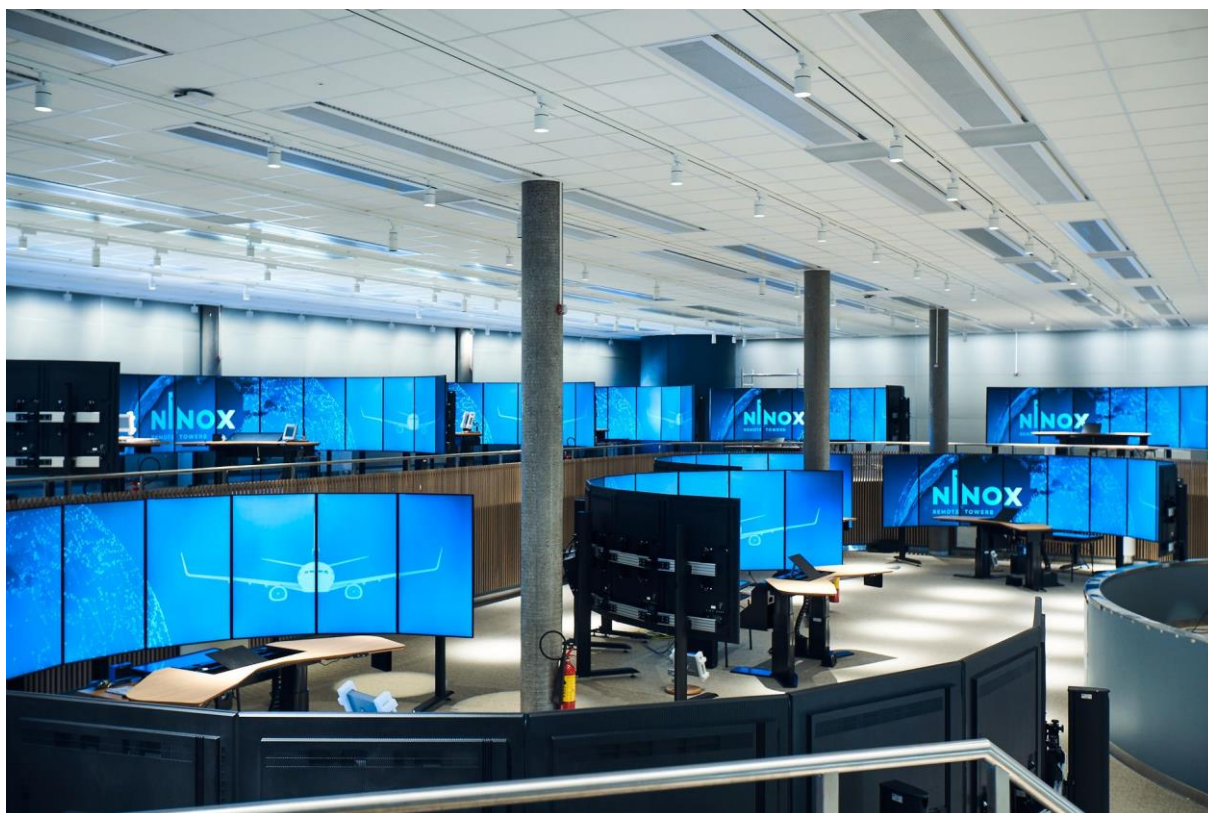
Senteret i Bodø skal i løpet av de neste to årene operere 15 av Avinors små flyplasser. Investeringen i prosjektet ligger per i dag på en drøy milliard kroner.

Teknologien er utviklet av Kongsberg Defence & Aerospace og Indra, og går under navnet Ninox.

Disse flyplassene skal inngå i Remote Towers Center

- Røst – i drift siden 19. oktober 2019
- Vardø – oktober 2020
- Hasvik – november 2020
- Berlevåg – november 2020
- Mehamn – april 2021
- Røros – april 2021
- Rørvik – oktober 2021
- Namsos – oktober 2021
- Svolvær – desember 2021
- Sogndal – desember 2021
- Molde – mars 2022
- Førde – mars 2022
- Bodø (tentative/tbd) – mai 2022
- Lakselv (tentative/tbd) – juni 2022
- Kirkenes – september 2022

Hele artikkelen kan leses [her](#).



Slik ser det splitter nye senteret i Bodø ut fra innsiden.

Indra improves navigational safety at 37 airfields in India

The navigational aids at 37 military airfields in India will be manufactured in Asker as Indra has been awarded a major new contract. The contract is part of the ongoing Modernization of Air Field Infrastructure (MAFI) project by the Ministry of Defense.

The modernization of India's airfields started in 2011 with Indra supplying navigational aids to 30 airfields. With the new contract Indra will deliver an additional 24 Normarc instrument landing systems (ILS) and 29 guidance systems (DVOR) during a project period of three years. The company has also supplied navigational aids to most of the country's civil airports, making Indra a major contributor to flight safety for air traffic in India.

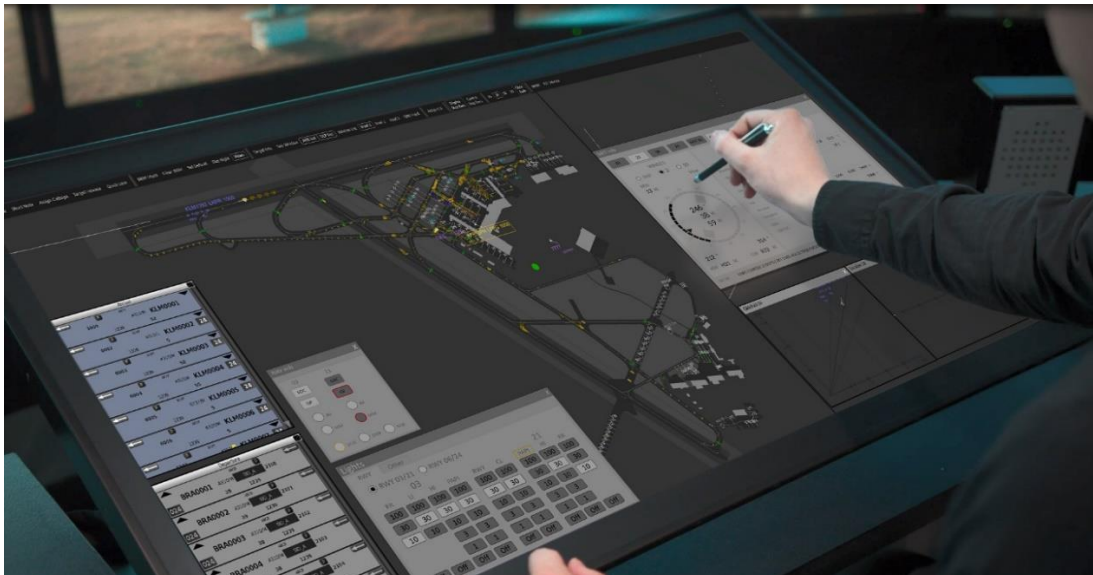
Indra's Normarc landing and guidance systems are known to be the most reliable systems in the market, having ensured safe landings for several hundred millions flights at 1400 airports worldwide.



Indra gains contract for new tower system at Praha Airport

Indra has been awarded a project for Air Navigation Services of the Czech Republic, moving the tower system at Praha Airport towards a more integrated solution.

The InNOVA Tower System allows the ground surveillance (A-SMGCS) to be integrated with functions such as electronic flight strips – with all information merged into a single user-friendly screen.



Indra to participate in EU drone project

Indra has been appointed as contributor to a new drone project within EU's Horizon 2020 programme. "U-space Separation in Europe" will research on separation methods between drones and manned aircraft, with special emphasis on urban areas.

The aim of the project is to define an industry standard for drone separation. In the project, Indra will collaborate closely with six other companies and research institutes, including the Norwegian USN (Universitetet i Sørøst Norge) and DLR (German Aerospace Center).



Nytt fra SINTEF

Det store teknologiutviklingsprogrammet SESAR 2020 (Single European Sky Air Traffic Management Research programme) vil fortsette sitt arbeid ut desember 2022. SESAR 2020 er finansiert av EUs rammeprogram for forskning og innovasjon (F&I), Horisont 2020. Samtidig som at det 7 år lange Horisont 2020 nærmer seg slutten så planlegges det et nytt forsknings og innovasjonsprogram. Det har fått navnet Horisont Europa og vil ligge under det nye langtidsbudsjettet (2021-2027). Det ser ut til at det fortsatt er enighet i EU om at det bør satses på mer utvikling og modernisering innen ATM, og de har derfor foreslått at SESAR 2020 fortsetter, om enn med noen forandringer, som partnerskapet Integrated ATM. Integrated ATM har vært under planlegging en stund, og har gjennom sommeren hatt en strategisk plan ute på offentlig høring (Strategic Research and Innovation Agenda - SRIA). Kort fortalt kan en si at digitalisering, kunstig intelligens og automatisering står i fokus, samt at intermodalitet og passasjerfokus er tatt inn som nye områder i SESAR. Her kan dere finne utkastet til [SRIA](#). SINTEF planlegger å bli med i IATM, så får vi se når lovreguleringen er på plass, forhåpentligvis utpå høsten.

Strategic Research and Innovation Agenda



ATM Konferansen hadde i 2016 "Grønn Luftfart" som hovedtema. Vi følger opp dette med å ta inn informasjon om luftfartens miljøavtrykk.

Airbus reveals new zero-emission concept aircraft

Toulouse, 21 September 2020 - Airbus has revealed three concepts for the world's first zero-emission commercial aircraft which could enter service by 2035. These concepts each represent a different approach to achieving zero-emission flight, exploring various technology pathways and aerodynamic configurations in order to support the company's ambition of leading the way in the decarbonisation of the entire aviation industry.



All of these concepts rely on hydrogen as a primary power source – an option which Airbus believes holds exceptional promise as a clean aviation fuel and is likely to be a solution for aerospace and many other industries to meet their climate-neutral targets.

“This is a historic moment for the commercial aviation sector as a whole and we intend to play a leading role in the most important transition this industry has ever seen. The concepts we unveil today offer the world a glimpse of our ambition to drive a bold vision for the future of zero-emission flight,” said Guillaume Faury, Airbus CEO. “I strongly believe that the use of hydrogen – both in synthetic fuels and as a primary power source for commercial aircraft – has the potential to significantly reduce aviation's climate impact.”

Hele saken kan leses [her](#).



H₂ combustion could reduce climate impact in flight by 50 to 75 percent, and fuel-cell propulsion by 75 to 90 percent.

Dette er konklusjonen i dokumentet «*Hydrogen-powered aviation: preparing for take-off*».

Dokumentet gjengir resultatene av en faktabasert studie utarbeidet av McKinsey & Company for Clean Sky 2 JU og Fuel Cells and Hydrogen 2 JU (i dokumentet referert til som "Joint Undertaking"). Studien ble bestilt i fellesskap av Clean Sky 2 JU og FCH 2 JU og mottok økonomisk støtte under H2020-rammeprogrammet.

Les hele studien om hydrogenets potensial for bruk i luftfart her:

[Hydrogen-powered aviation: preparing for take-off!](#)

News from Mønsberg Airport Information - www.mombergerairport.info

Avinor Air Navigation Services (ANS) is working with Frequentis and Altitude Angel to implement an unmanned traffic management (UTM) system at 18 air traffic control towers across Norway.

The system, which is being tested in a real-world environment at the first two airport towers, will support the country's future drone strategy. The UTM system provides an operational overview of the airspace and allows two-way communication between air traffic control (ATC) and drone operators, enabling safe drone use. The UTM project supports the

Norwegian Government's drone strategy for the increased safe use of drones, as well as tackling the rising number of reported incidents and airspace violations. With the UTM solution, Norway's ANSP, Avinor ANS, has the means to accelerate the safe integration of drones. Frequentis, with partner Altitude Angel, has provided the Common Information Services (CIS) function and includes a foundation of U-space (unmanned airspace) services. This allows Avinor ANS to open Norwegian airspace to commercial drone use and includes an operator portal including a fleet management system as well as web and mobile flight planning capabilities. Flight plans can be automatically created and amended, and flight requests approved or declined, while temporary or permanent no-fly zones can also be configured in the system.

Norway will be the first country in the Nordic region to implement a UTM system, highlighting Avinor ANS' dedication to the industry. The operational system already follows ongoing regulatory work, comprising CIS technology and a U-space service technologies. CIS provides the so-called 'single source of truth' for relevant safety information to reach connected stakeholders. Integrated by open and standardised APIs, U-space services are provided, including strategic deconfliction, conformance monitoring, and capacity management. Automation is used to increase efficiency; however, controllers and operators remain in full control and are contactable when required for emergency handling. #1128.ATC1

Indra and Microsoft have successfully completed the first phase of a project to locate and operate from the Microsoft Azure cloud platform.

This milestone strengthens Indra's strategy that already has solutions based on private cloud platforms in collaboration with iTEC Alliance, which is a membership of air navigation service providers of Spain, Germany, UK, Netherlands, Poland, Norway, and Lithuania. Indra is the provider and technology partner of this alliance. This new step taken jointly by Indra and Microsoft will enable air traffic systems to be transferred to a public cloud for the first time. It will enable air navigation service providers to benefit from the advantages of having their systems in the cloud, together with infrastructure cost-saving and at the same time benefit from state-of-the-art cybersecurity protection, available and updated at all times.

Air traffic management systems located in the 'cloud' will enable a control centre to take over from another centre in a contingency and will ease the centralization of some functions, which will result in streamlining the infrastructure needed for the provision of the service. Moreover, it opens the door to creating supranational control centres that provide temporary service for those countries where infrastructures are non-existent or damaged due to natural disasters, as has happened in the Caribbean or in Southeast Asia over the last few years.

Following the outcome of this phase, Indra and Microsoft are examining the applications offered by cloud technology for other flight management areas, including communication systems – surveillance systems (radars, multilateration systems and ADS-B), navigation systems (ILS, GBAS), and others recently developed by Indra such as digital control tower and satellite surveillance and communication. #1120.ATC4

The Government has reserved NOK 1.47 billion for a new Arctic Circle Airport (MQN) in Helgeland, between Mo i Rana in Norway and Hemavan in Sweden.

The project is included in the national transport plan (2018 – 2029) and is expected to replace the existing Mo I Rana-Røssvoll Airport and will directly affect air service operations at the Brønnøy, Mosjoen Kjaerstad and Sandnessjoen Stokka airports. In addition, Rana Municipality and enterprises in Mo i Rana will invest NOK 600 million in order to have the project started as soon as possible. The entire airport project will cost NOK 2 billion, if the construction of adjoining roads is included in the price. If everything goes smoothly, the airport with a 2,400-m runway – enabling aircraft with up to 200 passengers to land there – a 6,000-m² terminal, and

a 4,000-m² service building will be ready by September 2022, says Henrik Johansen, Managing Director of the Polarsirkelen Lufthavnutvikling AS development company. The new airport will bring in more jobs and more inhabitants, the industries will grow, businesses likewise. Optimism is noticeable also on the Swedish side of the E12 corridor. The progress of the airport project will influence also the work carried out in joint cross-border projects, E12 Atlantica Transport and the Midway Alignment - Botnia Atlantica II (MABA II). Both of these projects aim at strengthening the transport route from Mo i Rana on the Atlantic coast in Norway across Sweden and the Kvarken Strait to Ostrobothnia in Finland. -- Peab Anlegg AS secured the EUR 168.5 million contract for the project, with Hæhre Entreprenør AS acting as a subcontractor. #1118.3

Since opening in 1998, Oslo-Gardermoen Airport (OSL) has taken a sustainable approach to its operations, continual development and future expansion plans. It is widely regarded across the aviation industry as one of the world's 'most sustainable airports'.

The Australian consultant Airbiz has helped OSL and airport operator Avinor in its pursuit of climate-neutral operations and environmental excellence by undertaking a comprehensive benchmarking study to contrast OSL's environmental performance with 24 international airport comparators. The outcomes of this study were used to identify and prioritize the formulation of effective climate and environmental measures. These measures were derived from insights captured on the best practices, new technology and innovation in use at international peer airports. The results are being used to drive higher levels of environmental performance at OSL, to set targets to measure and track progress, and to create a future blueprint for a Group-wide modernization and improvement strategy encompassing Avinor's 44 other airports. #1118.4

In October 2019, a Widerøe flight was monitored from the new virtual control tower in Bodø.

The daily 25-minute Widerøe flights from Bodø to Røst carries locals returning from errands and curious tourists to one of Norway's most remote airports. For the first time in Norway, a commercial aircraft landed at an airport without the presence of staff in a physical airport control tower. The flight, approach and landing were all monitored remotely from a new virtual tower in Bodø. "We had good contact with, and visual observation of, the Widerøe aircraft all the way in to landing at Røst Airport. The remote-controlled tower system worked optimally, as we have been aiming for," said Jan Østby, head of the programme at Avinor, the state-owned enterprise that owns the vast majority of Norway's airport infrastructure. Kongsberg Defense & Aerospace and Indra delivered the solution, based on technology that has up until now only been used by the military. A spokesperson for Kongsberg said the system is "unique in terms of sensor technology and the security of control systems," while an Indra spokesperson claimed that it "helps to place Norwegian technology in the driver's seat in the field of air traffic control."

In addition to Røst, the airports at Vardø, Hasvik, Berlevåg, Mehamn, Røros, Rørvik, Namsos, Svolvær, Sogndal, Molde, Førde, Bodø and Lakselv will be controlled from the new centre.

Haugesund Airport was originally on the list but since new owners took over operations, the 15th airport to be controlled from the remote tower is yet to be decided. All the airports on the list with the exception of Bodø are small and handle just a couple of flights each day. As remotely operated towers are only feasible if they can be proven to be as secure or more secure as conventional staffed towers at airports, there is still some way to go with the project. The Civil Aviation Authority has given its first approval following this flight, although extensive

testing will continue. Avinor bosses say they have been planning the transition for years and that everyone will be “well looked after”. #1118.5

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