

SKYWAN – THE NEW DIMENSION IN AIRBORNE SATELLITE COMMUNICATION

Making Missions Possible



ND SATCOM IN THE AIR:

POWERING ROTARY AIR-CRAFT COMMUNICATION

Diverse rotary aircraft have far-ranging operational missions, from military to border security, search and rescue to medical transport. Real-time communication, live video feeds, and other data transmissions are critical to informed decision-making and rapid response. Unlike fixed-wing aircraft, the longstanding engineering challenge with helicopters had been the impact of rotor blade action on satcom signals, interrupting communication receipt and transfer.

With its superior engineering expertise and commitment to R&D investment, ND SATCOM has successfully developed a rotary "beyond the line of sight" satcom solution its clients have sought with the utmost reliability clients expect. This new **Airborne SatCom** system will be the European market's it-product for rotary aircraft in 2022. ND SATCOM's exacting standards include partnering with European helicopter manufacturers and their avionics platforms for a series of performance tests and field results.

The **Airborne SatCom**'s three-part system consists of a Ka- and Ku-Band antenna, antenna control unit (ACU) and SKYWAN modem, an ITAR-free airborne solution that offers a point-to-point configuration from helicopter to ground providing broadband transmission (e.g. videos, data, voice). SKYWAN modems use a robust TDMA burst waveform to transmit and receive through the rotor. This optimised new waveform confers several advantages.

One is the high flexibility given to helicopter manufacturers as to where to place the antenna. Another is this waveform automatically adapts to a specific helicopter model and its rotor speed. The SKYWAN-integrated one-box unit for this rotary **Airborne SatCom** system is certified for avionic use according to RCTA DO-160 criteria.

The future possibilities are exciting. In addition to fully integrating the rotary aircraft terminals into existing SKYWAN networks, ND SATCOM envisions remotely piloted or autonomous rotary aircraft as benefitting from this new solution. ND SATCOM's launch of **Airborne SatCom** system is the next-gen innovation setting the rotary-wing world alight in 2022.

A New Dimension in SATellite COMmunication

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