

NEW NIKON D5 BRINGS SHEER IMAGING POWER TO THE HANDS OF PHOTOGRAPHERS

MIDDLE EAST & AFRICA: The next-generation flagship model that expands photographic possibilities for professional photographers, the Nikon D5, is announced by Nikon Middle East FZE today. This latest Nikon-FX format DSLR camera is developed with advanced specifications that include significantly improved moving subject acquisition capabilities, and compelling image quality at high sensitivities to enable excellent response to a wide variety of scenes and subjects.

"We understand the importance of a millisecond when it comes to capturing a remarkable competitive sporting moment or the intensity of a ground-breaking news piece. The camera companion has to outperform the expectations by delivering a potent fusion of extensive image capturing power alongside a detailed and immediate acquisition performance, regardless of the environment," said Takashi Yoshida, Managing Director, Nikon Middle East FZE. "Following this train of thought, Nikon presents the new FX-format flagship DSLR, the Nikon D5. Engineered with all of the mentioned, and housed in a camera body of exceptional reliability and operability, the D5 is a professional's formidable photography partner. Nikon D5, I am vision outperformed."

Photographers on the beat, needing to keep up with the constant change of pace of a subject under a variety of conditions, will enjoy the new 153-point autofocus (AF) system and a stable viewfinder image that makes tracking moving subjects easy, even with high-speed continuous shooting at approximately 12 fps*1. Visual aesthetics are heightened with the collaboration of a new Nikon FX-format CMOS sensor and a new EXPEED 5 image-processing engine, both developed by Nikon, producing the highest standard ISO sensitivity in Nikon history with up to an ISO of 102400. This helps to expand photographic possibilities by liberating photographers from lighting restrictions, not only with the capture of still photos, but also with recordings of 4K UHD (3840 x 2160) movies, the latter being a new feature introduced with the D5.

Workflow is notably amplified in time and function, as more new, improved features and functions are introduced with the 20.8-megapixel D5. A high-resolution touch screen LCD monitor, fast communications with both wired networks via built-in Ethernet connector and wireless networks*2, alongside double memory card slots*3 make for a highly efficient workflow.

Contributing to greater autofocus (AF), auto exposure (AE) and auto white balance (AWB), is the incorporation of a new 180K-pixel RGB sensor for the Advanced Scene Recognition System. The winning combination of these features and functions comes fitted with a design that consumes less power and adoption of a highly precise and durable shutter, while increasing camera reliability in terms of control precision, strength and durability. The D5 also supports the new Nikon Creative Lighting System functions, Radio-controlled Advanced Wireless Lighting (AWL) and Unified Flash Control.

D5 Primary Features

1. Swift response, astounding tracking
* New AF system that demonstrates excellent response to moving subjects and tracking performance, even under a variety of circumstances: Pivotal moments happen in the blink of an eye, and photographers are constantly on their toes to capture the action regardless of the lighting conditions. These needs are addressed with a



complete overhaul of the D5's AF system with an adoption of the Multi-CAM 20K autofocus sensor module. The AF sensor module offers 153 focus points, 99 of which are cross-type sensors, for broad and dense coverage of the image area. The centre focus point has a detection range beginning at an incredible 74 EV, and detection with other focus points begins at 73 EV*5, enabling autofocus even under extremely dim lighting, and with subjects exhibiting very low contrast. In addition, equipping the camera with a dedicated AF engine capable of high-speed calculation and collaboration with the 180K-pixel RGB sensor have ensured that extremely reliable AF performance is demonstrated with a variety of scenes.

Incessant clicks without missing a beat

High-speed continuous shooting at approximately 12 fps with a stable viewfinder image that makes tracking moving subjects easy: Photographers will find their new photography companion being capable of approximately 12 fps*1 continuous shooting with AF and AE tracking in all image quality modes, and across all ISO sensitivity settings. The addition of a new mirror drive mechanism achieves a more stable viewfinder image that makes constant tracking of rapidly moving subjects easy. Matching to the pace is the accessibility of capturing up to 200*6 12-bit lossless compressed RAW images with a single burst.

Expressions unbound with bold image storytelling

Higher standard ISO sensitivities that ensure superior image quality within the most frequently used high sensitivity range: The potent combination between the new Nikon FX-format CMOS sensor and the new EXPEED 5 image-processing engine have enabled the highest standard ISO sensitivity in Nikon history of up to ISO 102400. High-sensitivity image quality at these never-before-seen levels achieves superior imaging quality, even within the high ISO 3200 to 12800 range that is often used with sports photography and the likes. In addition, the image sensor's broad dynamic range enables rich and natural expression of tones for accurate reproduction of the finest details, even extremely vivid subjects with difficult texture expressions.

Taking the director's seat in ultra high definition

Cinematic brilliance with 4K UHD (30p)

movie capability: The D5 supports 4K movies, which offers higher resolution than HD or Full-HD movies, capable of recording 4K UHD (3840 x 2160)/30p, 25p, 24p movies to a memory card inserted in the camera. Alternatively with a simultaneous HDMI output, movies can also be displayed on an external monitor or recorded as uncompressed video to an external recorder. With the maximum standard sensitivity of ISO 102400, as well as even higher sensitivity settings up to Hi 5 (equivalent to ISO 3280000), superior picture quality is still assured even when recording movies at these high sensitivities. Rounding off the spectacular movie-making experience is

the capability to generate 4K UHD time-lapse movies in-camera.

Advanced specifications for on-site demands, efficient workflow

A high-resolution 3.2-inch, approximately 2,359k-dot touch screen LCD monitor: Adoption of a touch screen for the display monitor enables nimble confirmation and high-speed navigation of a large number of images using a frame advance bar, and supports an efficient workflow with text input and the like. The high-resolution monitor enables extremely clear display with live view photography, even when the display is enlarged, for fast focus confirmation.

Greatly increased communications performance with both wired and wireless networks: The communications system has been significantly improved to support communications at least twice as fast as with the D4S, with both wired networks using the Ethernet connector built into the D5, and wireless networks when the new Wireless Transmitter WT6 (available separately) is used with the D5.

Versatile image storage options: Two versions of the D5 are available. Both are equipped with double memory card slots supporting a single media type, one being for XQD cards and the other for CompactFlash cards.

Bridging the gap of networks

The Wireless Transmitter WT-6, available separately, comes handy for high-speed wireless network communications: When connected to the D5, high-speed transfer of image data to a computer*7 or an FTP server over a wireless network is possible

with a maximum range of approximately 200 m*8. Communications are significantly faster with support for the new IEEE 802.11ac (202 VHT80) standard. Wireless control over the camera from a computer is also possible using Camera Control Pro 2 (available separately). With the WT-6 connected to a D5, the combination also serves as a wireless LAN access point, enabling possibilities of direct connection to a computer or smartphone.



1- Possible in Continuous high speed (CH) release mode with shutter speeds of 1/250 seconds or faster

2- When used with the Wireless Transmitter WT-6 (available separately)

3- The camera is available in two versions, one that uses two XQD cards and one that uses two CompactFlash cards

4- When used with the Speedlight SB-5000 (available separately)

5- At ISO 100, 20 ∞C/68 ∞F

6- When Lexar Professional 29330 XQD 2.0 memory cards are used

7- The Wireless Transmitter Utility (available for download from Nikon's website) must be installed on the computer

8- With a large antenna at the wireless LAN access point. Range varies with signal strength and presence or absence of obstacles.

SEEING MACHINES TECHNOLOGY IN DEMAND FROM CRASH-PROOF CAR MAKERS

NEW YORK: The first public pictures of Seeing Machines' display prototype of technology developed with Samsung. Icons are activated with the driver's eyes. Photo: Supplied

In future, cars will be watching their drivers more closely than any police highway patrol officer.



Cars will have a safety brain that can look at their driver's eyes and assess their ability to handle whatever is happening outside of the moving vehicle.

Crash-proof cars coming closer to production will integrate technology conceived at the ANU, Canberra, and now commercialised throughout the world by the spin-off company Seeing Machines. Seeing Machines uses smart cameras

and algorithms to track drivers' face, eyes and eyelids to monitor their attention and alertness levels in real time.

Seeing Machines chief executive Ken Kroeger says the company has 160 people, including 23 engineers, working on crash-proof car technology, and cannot meet all the requests from car manufacturers.

what is happening outside the car, and smart enough to know what the driver is capable of doing through all sorts of technologies."

Seeing Machines is working with Samsung converting a windscreen into a transparent television screen. The road scene in the picture is from another television in front of the car.

Still five or six years away from production, the technology will enable drivers to operate icons on the screen with their eyes, to access a phone and contacts and other devices.

Seeing Machines' technology is being integrated with other innovations in a central safety brain in the car of the future. Mr Kroeger says it is this integration into newly available, advanced driver assistance systems that will make a difference.

"Imagine a world where your car knows how able, or available, you are to properly operate your vehicle, and automatically compensates by seamlessly taking away and handing back control to you on a continual basis, without you even knowing that it's happening," he said.

Mr Kroeger hopes that within the next five years the Australasian New Car Assessment Program's safety rating and the Australian Government will consider mandating crash-proof technology, as is happening now in Europe.

He expects technology will become crucial in future in allowing older drivers to continue to drive into old age. "Now my mother should not be driving, but in three years time I won't be so worried about her driving," he said.

BUILD A BETTER WEATHER NETWORK? NEW YORK TAKES THE DARE

ALBANY: Counting every raindrop or measuring every gust of wind is impossible, but New York is getting closer with a uniquely extensive statewide system of automated weather stations that should paint a dramatically clearer picture of developing storms.

Described as the new "gold standard" of automated systems, the long-planned network of 125 weather stations stretching from the shores of Lake Erie to the tip of Long Island is expected to be completed by the end of the year.

Fourteen stations are already transmitting temperature, pressure and other data every five minutes. When all the stations are operating, forecasters, emergency officials and ordinary weather wonks will be able to get a fine-grained look - a million data points a day - that will hopefully lead to better predictions.

"That's the problem with the current network. There are serious gaps and so you can't see enough of the weather as it's evolving," said Chris Thorncroft, chairman of the University at Albany's atmospheric and environmental sciences department.

Thorncroft is helping lead the development of the New York State Mesonet, which is being funded with a \$23.6 million grant from the Federal Emergency Management Agency. The new system will augment the 27 stations now used by federal forecasters.

People in New York will never be more than 25 miles from a station. The new system will also take in types of data that the current stations do not, such as soil temperature and

moisture, and solar radiation. Each site even transmits pictures every five minutes.

Select data from the working stations is already being posted to the Web.

Slightly more than half the states have some kind of network of stations augmenting those the federal government relies on. But the dense and sophisticated network being built in New York will surpass the sophistication of the current "gold standard" system in Oklahoma, according to Curtis Marshall, the National Mesonet program manager.

Oklahoma Mesonet manager Chris Fiebrich said that state's 120-station network, which dates to the early '90s, provided crucial information for public safety officials and meteorologists last year, the wettest in Oklahoma's history.

"Every season, at least, the Mesonet proves its value in just recording incredibly extreme weather," Fiebrich said.

Discussions about a New York Mesonet began in earnest after the Catskills were deluged by the remnants of Hurricane Irene in 2011, Thorncroft said. Record-setting rain had fallen in areas without a gauge, leading to delayed information, he said. A year later, Superstorm Sandy sent a surge into the New York City area and killed 53 people in the state.

Gov. Andrew Cuomo has been promoting the weather detection system since 2014, though not always in a welcoming way. The governor mentioned the coming forecast improvements that November as the Buffalo area dug out from a jaw-dropping 7 feet of

snow. His claim that the weather service was "off" in its own snow forecast turned out to be fighting words to meteorologists who had spent days warning about a major storm.

Actually, the National Weather Service will take the data into their own system and use it for their own forecasts. Raymond O'Keefe, meteorologist-in-charge at the service's Albany bureau, said forecasters have already used data from the existing stations to check on whether local ground was frozen before a recent soaking rain as a way to forecast runoff. The attraction to O'Keefe is simple: more data going into models, better data coming out.

"Better observations, better predictions, better forecasts, better warnings," he said.

Utilities and other businesses wanting the data sent to them will pay a fee. New York's Mesonet is temporarily housed in a sub-basement at the University at Albany until newer space is ready elsewhere around the campus. The automated stations will look pretty much the same, with 30-foot metal towers topped by wind sensors. Most are being built in open fields, though five New York City stations will be on rooftops. Some of the stations, mostly in the Adirondack Mountains and the adjacent Tug Hill Plateau, will measure snowfall.

Significantly, 17 stations will be able to measure conditions in the atmosphere miles above, a job done now on a much more limited basis now by weather balloons. Marshall, at the National Weather Service, said such "vertical profiling" is done in some other areas, but not in the systematic way New York is deploy-



ALBANY: In this Monday, Jan. 11, 2016 photo, Professor Chris Thorncroft, chairman of the Atmospheric and Environmental Sciences Department at the University at Albany and co-principal investigator for the New York State Mesonet, poses in the Mesonet operations center at the university in Albany, N.Y. Described as the new "gold standard" of automated systems, the long-planned network of 125 weather stations stretching from the shores of Lake Erie to the tip of Long Island is expected to be completed by the end of the year. Thorncroft is helping lead the development of the New York State Mesonet, which is being funded with a \$23.6 million grant from the Federal Emergency Management Agency. — AP

ing them. Thorncroft called the array of profilers a "game changer," since they will provide much more real-time information about three-

dimensional aspects of the atmosphere. "Knowing what's happening now will allow you to say something intelligent about the next few hours," he said. — AP