The D3S: on assignment

From the bustling metropolis of Sydney to aboriginal villages in the Outback, from a cold and dusty Aussie rules football pitch in Tasmania to the sun-baked desert in Nambung National Park, Sports Illustrated staff photographer and award-winning photojournalist, Bill Frakes roamed Australia for three weeks, testing the D3S relentlessly to serve his seemingly limitless photographic imagination.

As an artist with an immense respect for nature, award-winning wildlife photographer, Vincent Munier waits patiently in severe weather until his animal subjects grow to accept his presence. Only then will he begin photographing them. Vincent recently took the D3S on assignment with him to Norway and Finland. There, he and the D3S sat quietly in the wind and rain while getting to know the creatures of the Nordic forest.

Bill Frakes
Sports/Photojournalism (U.S.A.)

Vincent Munier
Nature/Wildlife (France)

Every time I put the D3S to my eye, it’s like opening a surprise present. It makes the child in me come out and play. Everything I see can be captured accurately and fluidly, and by combining still capture and D-Movie, I can meld motion and emotion into multidimensional expressions of visual and audio exploration. I make career-defining decisions in milliseconds, and I want the best possible image quality every time. I push the button. I never know when the cosmos will align in such a way that the perfect image is available. When it happens, I have to be ready in every conceivable way. I have to be in the wind and rain, I have to be in the wind and rain, I have to be in the wind and rain, I have to be in the wind and rain.

Animal photography is a passion more than a profession. Sometimes I sit in the rain for weeks just to experience a single brief moment with an animal. I need the best and most reliable equipment available so that I can take full advantage of the rare opportunities inherent in my work. Many of my subjects are active only after the sun goes down. Yet, with the D3S, I am able to photograph things that my eyes were practically unable to see. For example, I remember a moment that was preserved from my camera in the Finnish taiga. It was the middle of the night, but just a few steps forward permitted me to focus, resulting in a surprisingly crisp picture. Capturing images like this is what makes the D3S invaluable.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer, October 2009

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WARNING: TO ENSURE CORRECT USAGE, READ MANUAls CAREFULLY BEFORE USING EQUIPMENT. SOME DOCUMENTATION IS SUPPLIED ON CD-ROM ONLY.

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Printed in Japan SH00960-8597

D3s 09/09
What would you do if the laws of photography changed? With the introduction of the new Nikon D3S, professional photographers around the world will reconsider this question entirely, and re-examine the power, potential and reach that photography can now achieve. The D3S’s abilities are so revolutionary that photographers will experience an entirely new level of performance and creativity, pushing them further into the uncharted waters of possibility. Standing on the shoulders of the incredibly fast and versatile D3, the new D3S makes spectacular improvements that will enable you to thrive and shoot in ways you never thought possible: commercial-quality low-noise images as high as ISO 12800, the ability to shoot HD movies at high ISOs with stereo sound*, saving a selected frame from D-Movie as a JPEG for immediate print and web publication, light sensitivity beyond what your own eyes can see clearly, and the consistent accuracy and reliability that Nikon is known for. All of these things are now at your command. The new Nikon flagship will quite literally make you see things differently, and help you approach your next assignment with a new sense of excitement. It’s time to redefine the true power of photography and the future of imaging. What could you accomplish if you could redraw the boundaries of photography? Find out, with the D3S.

*When using an optional external stereo microphone.
ISO performance: ISO 12800 as standard, expandable to ISO 102400 equivalent (Hi 3)

Whether shooting indoor sports, stadium events at night, theatrical and concert performances, weddings, dimly-lit spot news or in any condition where light is limited and Speedlights are not an option, the D3S will change how you are able to approach assignments, even more dramatically than its predecessor, the legendary D3. Photographers can now depend on ISO 200 to ISO 12800 as the professional standard. Imagine: tack-sharp action images in low light at action-freezing shutter speeds without worrying about excessive, image-degrading noise – even at ISO 12800. When needed, the D3S expands into uncharted territory, reaching the amazing ISO equivalent of 102400. At this setting, the D3S lets you still reveal color and detail, even in extremely low-lit places. The D3S’s exceptional low-noise performance also applies to D-Movie capture. What can you accomplish with still or movie images in extremely low-light situations? Consider the new possibilities.

Large pixel pitch: the 12.1-megapixel FX-format advantage

Dedicated to raising the bar of the legendary D3 performance, Nikon engineers completely redesigned the image sensor of the D3S, further optimizing the inner structure while maintaining the pixel count and the large pixel pitch for even greater latitude in high ISO performance. As a result, the D3S captures and renders light in ways that no other camera has yet achieved*. This in turn contributes to a significantly higher signal-to-noise ratio and a wide dynamic range, which translates into unmatched image quality throughout the broadened ISO sensitivity range for both still images and movies. Complied with the unmatched accuracy of NIKKOR lenses, the D3S and its FX-format sensor deliver a quality all their own.

D-Movie: new dimensions to your creativity

From well-lit scenes to extremely low-lit situations, Nikon’s D-Movie mode delivers unique versatility. Its Motion-JPEG gives you HD quality (1,280 x 720 pixels) movies at 24 fps. By controlling the aperture from the widest f-stop to the large FX-format sensor renders low-noise images with beautiful bokeh effects from a single selection of NIKKOR lenses. Use High-Sensitivity Movie mode to shoot at up to ISO 102400 in places too dark to see clearly with your own eyes. Movie footage is easy to trim in-camera by choosing the starting or ending points for easy transfer. You can even save selected movie frames as JPEGs for immediate print and web publishing needs. The D3S has both an internal monaural microphone and an external stereo microphone input, enabling higher fidelity audio recording.

Image Sensor Cleaning: assured protection

After relentless testing, Nikon engineers successfully developed the Integrated Dust Reduction System that will satisfy high expectations. The D3S’s Image Sensor Cleaning function generates vibrations at four specific frequencies to optimize dust removal. The function can be set to operate automatically when the camera is turned on and off, or manually.

* Among digital SLRs, as of September 2009.

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EXPEED: Nikon’s comprehensive approach to quality digital images

Nikon understands that image quality, accuracy and speed are equally critical to professional photographers. Further refining these essential performance requirements is what brought about EXPEED, Nikon’s fast, comprehensive, and energy-efficient approach to in-camera image processing. The rich initial data maintains its integrity through 14-bit A/D conversion and a 16-bit image-processing pipeline, which shows the enormous creative potential inherent in the NEF (Nikon Electronic Image Format). Combined with Nikon’s FX-format sensor, the D3S produces an exceptional tonal range, and minimized tone jumps. Expect finer tonal gradation in highlights even with extremely bright subject matter – as well as colors that were once considered altogether impossible, such as skin tones and strong reds in the same frame without over-saturation.

**Lateral chromatic aberration reduction:** edge-to-edge sharpness

The D3S corrects color fringes caused by chromatic aberrations that, in some instances, can appear at the edges between differing subject elements, thereby improving image quality throughout the entire frame. Because lateral chromatic aberrations are corrected regardless of lens type – whether telephoto, wide-angle, non-CPU and other types of NIKKOR lenses – this important aspect of the D3S contributes substantially to the highly refined image integrity that professionals demand.

**Active D-Lighting:** rescuing tone in highlights and shadows

The days of choosing between shadow or highlight detail are over. Nikon’s Active D-Lighting automatically regulates the dynamic range of high-contrast scenes to pull out shadow details and preserve highlights. Simply choose the appropriate setting – Auto, Extra high, High, Normal, Low or Off – prior to shooting. Auto setting controls the regulation value appropriately. You can also bracket Active D-Lighting strength levels up to five frames and select the best rendition afterwards.

**Picture Control:** custom-tailored tone and color

Nikon’s powerful and intuitive image adjustment tool helps you define the look and feel of your images by custom-tailoring sharpness, saturation and other parameters to match your creative intentions. Think of it as selecting certain types of film for specific shooting situations. The D3S comes with four pre-installed Picture Control profiles, which can be fine-tuned and saved as new custom Picture Control profiles that match your personal preferences and shooting style or pre-trial shooting conditions. Fast, easy and powerful, custom profiles are easily copied to additional cameras.

**Image Quality Further Refined:** EXPEED

*Image courtesy of Bill Frakes.*

**Landscape**

*Monochrome*

*Vivid*

Active D-Lighting [Off] Active D-Lighting [High]

**Neutral**

**Standard**

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**Speed and readiness throughout the workflow**

The D3S optimizes workflow speed and fluidity throughout the entire process: from setup to shooting to data recording and transfer. Start-up time is approx. 0.12 seconds* and release time lag is minimized to approx. 0.04 seconds.* Autofocusing, image processing, buffer memory, memory card access and recording, USB interface and the optional wireless transmitter work together to keep you focused and moving forward. And for sport and spot news photographers, many of the D3S’s JPEG files are print-ready with little or no post-production: an extra edge when time is short.

9-frames-per-second* shooting rate in FX format, 11 fps* in DX crop

The D3S’s continuous shooting rates are quite impressive, but what makes them truly unique is that the camera’s powerful stepping motor allows for a steady delivery of fast continuous shooting speeds at a wider range of aperture settings than conventional digital SLRs. Professionals will now have greater control and fewer limitations when making the images they desire, and with DX crop mode, photographers can also add a 1.5x picture angle and a faster frame rate to their arsenal. Furthermore, the factory-installed buffer memory is twice the capacity of the D3, dramatically increasing the power of continuous shooting.

**Scene Recognition System: enlightened accuracy and intelligence**

Nikon’s exclusive 1,005-pixel RGB sensor precisely reads brightness and color information to raise the overall accuracy of AF, AE, iTTL flash control and auto white balance to new heights via the Scene Recognition System. The D3S’s AF delivers superb subject tracking and subject identification performance. Highlight analysis used for AE reproduces brightness faithful to what your eyes see, and light source identification makes auto white balance uniquely precise and reliable.

**51-point AF: fast and accurate subject acquisition**

This dense net of 51 AF points delivers faster focus, even with quick and/or erratic subject movement. The 15 cross-type sensors in the center of the frame maintain the same outstanding performance with any AF NIKKOR lens f/5.6 or faster. There are four Dynamic-area AF options including 51 points (3D-tracking), which accurately pursue your subject by shifting focus points using color and brightness information from the Scene Recognition System. This is useful when composition is important, but your subject’s movement is extremely erratic. Single-point and Auto-area AF modes are also available.

**Sophisticated AE with highlight analysis**

Nikon’s exclusive 3D color matrix metering II is highly praised for its outstanding performance and faithful exposure results – even in complex, unforgiving lighting conditions. Using highlight analysis from the Scene Recognition System and then carefully selecting from a database containing information from over 30,000 actual shooting situations, the D3S now takes accurate exposure further.

**Informed auto white balance**

Leading professionals often note that Nikon’s auto white balance exhibits remarkable results, even in challenging mixed lighting conditions. With the D3S, auto white balance make even further progress. Professionals can expect white to truly white in a wider variety of settings.

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*Based on CIPA Guidelines.

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Lens: AF-S NIKKOR 400mm f/2.8G ED VR

Image quality: 14-bit RAW (NEF)

Exposure: [A] mode, 1/6,400 second, f/2.8

White balance: Cloudy

Sensitivity: ISO 800

Picture Control: Standard

©Vincent Munier
NIKKOR lenses: the heart of the Total Imaging System

The conditions of photographic assignments are fluid, while the requirement for professionals to deliver stunning images remains constant—and stunning images begin with world-famous NIKKOR interchangeable lenses. NIKKOR lenses represent decades of optical engineering experience and the benefits of exclusive Nikon technologies such as Super Integrated Coating to reduce ghost and flare. Nikon’s Nano Crystal Coat further minimizes ghost and flare caused by internal reflections, even when the light source is in the frame. Theses, and a myriad of additional design considerations, are brought together in a skillful blend of both art and science to create the optical quality on which so many professionals rely.

Creative Lighting System: the light of inspiration

The D3S’s Scene Recognition System delivers refined i-TTL flash control from your SB-900, SB-600 and SB-400 Speedlights. You can achieve accurate exposure results, even with small subjects and highly reflective objects. The Creative Lighting System offers various flash techniques, including Advanced Wireless Lighting, which gives you immediate and total control, making commanding multiple remote Speedlights as easy as controlling one Speedlight mounted on your camera.

Wireless Transmitter WT-4A*

Photographers working in large venues will appreciate the WT-4A, which supports IEEE 802.11a/b/g. The Thumbnail Selector quickens workflow by first sending thumbnails to a remote computer. Editors can select images before their full data is sent, saving precious time.

GPS Unit: GP-1

With the GPS Unit GP-1, latitude, longitude, altitude and time are automatically recorded to each image’s EXIF data, making it easy to exchange data, create original maps or display image location on Google Maps™ using ViewNX software (provided). GP-1 is also useful for travel records, news reporting and academic research. Time Adjustment lets you adjust your camera’s time zone, which is useful for group assignments that require several D3S cameras to be synchronized.

Nikon’s exclusive software

Nikon offers powerful software to give professionals extra reach and definition for their images. Camera Control Pro 2 (optional) for remote camera operation, ViewNX (provided) for browsing, and Capture NX 2 (optional) for developing the greatest potential of NEF (RAW) postproduction processing and photographic editing.

True Versatility: Total Imaging System

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Flagship Reliability and Improved Operation

Electronic Virtual Horizon

Store up to four combinations of exposure settings while maintaining the original – useful for batch editing or when adjusting image size while maintaining the original aspect ratio. Alterations, without the need of a computer.

Long-life battery

Based on CIPA Standards. You can shoot up to 4,200 images*

White Balance

Auto (TTL white balance with main image sensor and 1,005-pixel RGB sensor), Auto (CLS commander and SB-900, SB-800, SB-600 or SB-R200 as remotes), Auto

Focus

51 focus points (including 15 cross-type sensors); AF fine tuning can be adjusted

Flash

1) Front curtain sync, 2) Slow sync, 3) Rear-curtain sync, 4) Red-eye detection

White Balance Bracketing

2 to 9 frames in steps of 1, 2 or 3

Exposure Lock

Exposure locked at detected value with AE-L/AF-L button

Exposure Bracketing

2 to 9 frames in steps of 1/3, 1/2, 2/3 or 1 EV

Flash-ready Indicator

Lights when Speedlight such as SB-900, SB-800, SB-600, SB-400, SB-28DX or SB-50DX is fully charged; blinks after flash is fired at full output

Multiple exposure

You can use the two methods to create long exposure effects with long shutter speeds. Use this method after setting the mirror-down during shooting.

Multi-coverage format

The CS2 allows you to select such things as exposure at the rear of the sensor, without the need of a computer. This allows for increased spatial resolution and reduction of the noise in the final image.

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