



In This Months Magazine

**President's Report
NVM Festival Entry Form
Spectral Similarity Index (SSI)
DJI Osmo Action Review
NVM Festival Entry Form**

June 2019

| Mon | Tue | Wed | Thu | Fri | Sat | Sun |
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**5th June 7.30pm
Wednesday Club Meeting
Themed Competition
Travel, Sport, Hobby
Club memberships Due**

July 2019

| Mon | Tue | Wed | Thu | Fri | Sat | Sun |
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| 29 | 30 | 31 | | | | |

**3rd July 7.30pm
Wednesday Club Meeting
Intermediate Competition**

2019 COMPETITIONS & FUNCTIONS

| | |
|-------------|--|
| June 2019 | Themed Competition Travel, Sport, Hobby |
| July 2019 | Intermediate Competition Film of the month Plus A.G.M. |
| August 2019 | T.B.A. |

From the President's Desk



It was encouraging to see a few more members turn up to our last club meeting. This turned out to be a fairly full night with our discussion on titles being the largest segment. Many of our members chimed in with their insights into making high quality and interesting looking titles, but special mention again to Geoff and Ian's efforts. Geoff delivered a finely researched talk on titles and backed this up with some interesting examples on the big screen. It all helps Geoff! Ian detailed the making of his titles from his film Pressure. He did this by using a kind of live set from the actual film, with camera setups (that could pass through walls) and demonstrated the path that his titles were able to travel! I thought the original film was quite interesting but this 'behind the scenes' stuff was brilliant! Thanks Ian.

So, as you can gather, I am very interested in discussing various film making subjects that are useful to our members, plus I am keen for any of you who would like to contribute. (Not just me standing out the front delivering another 'talk fest'.) So, a few subjects have been suggested for future discussion: Slow Mo; Time Lapse and the legal use of Stock Footage in our films. And if you have any technique you are interested in please let me know and we'll feature that as well...

Last month I had another crack at presenting a 'film of the month' (28 feet: life on a little boat).

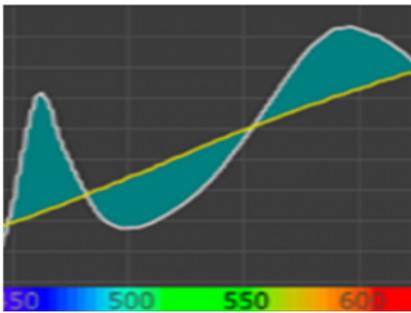
This turned out to have poor sound (sorry about that) however these 'film of the month' screenings do give us room to discuss the films shown and various techniques involved in their production, so if any of you have a film in mind please bring it along next month - I think they are worthwhile...

Finally, I am almost at the end of my 3 year tenure as club president and shortly we will be looking for someone to take over and if you have strong ideas about which direction you'd like our club to head, or energy or enthusiasm, please consider having a go. You'd be most welcome and greatly appreciated, and you certainly wouldn't be doing it all yourself - our committee are wonderful and are always there to help carry the load!

Phillip Reynolds.

**Its that time of year again when
your video club memberships
are Due**

Spectral Similarity Index (SSI)



The Academy of Motion Picture Arts and Sciences, working with cinematographers, cinema lighting experts, lighting manufacturers, and lighting, imaging, and camera scientists and engineers, has developed a new index for the spectral evaluation of luminaires. The Spectral Similarity Index, or SSI, addresses issues with existing indices such as the Color Rendering Index (CRI) and the Television Lighting Consistency Index (TLCI) that make them inappropriate to describe lighting for digital cinema cameras -- issues that have become more evident with the emergence of solid-state lighting (SSL) sources such as LED's.

In contrast to the relatively smooth, broad-spectrum power distributions of blackbody emission, tungsten incandescence, and daylight (and the ISO standardizations of these sources), many solid-state lights are characterized by peaky, multimodal, or narrow-band spectral distributions. These spectral distributions can wreak havoc with color rendition (by both film and digital sensors), since film and digital cameras are all expressly designed to work with, and are indeed optimized for, standard tungsten and daylight. Existing color metrics were not designed for cinema cameras; CRI, for example, is based on human color sensitivity rather than camera sensitivities. The TLCI measures rendering by an idealized three-chip camera, which does not adequately account for the differing spectral sensitivities of single-chip cinema- or still-camera digital sensors.

For these reasons, SSI is not based on human vision, nor any particular real or idealized camera, and does not assume particular spectral sensitivities. Rather, it measures how close a given spectrum is to a specified reference spectrum, such as tungsten or daylight. It is a single value representing the quality of the curve fit to the reference spectrum, and indicates the predictability of color rendering with the given source. SSI is scaled so that a score of 100 indicates a spectral match; high values indicate predictable rendering by most cameras (as well as "quality" of visual appearance). Low values may produce good colors with a particular camera but not with others. SSI is useful for cinematography, television, still photography, and human vision.

SSI is fully described in a presentation that was given to the Society of Motion Picture and Television Engineers (SMPTE) at its technical conference in 2016 (accessible by SMPTE and IEEE members at <http://ieeexplore.ieee.org/document/7819442/>). (Note: In that presentation, the only reference illuminants postulated were ISO daylight and studio tungsten. During the review phase after the presentation, the Project Committee decided to add the ability to use other reference illuminants such as blackbody illuminants of arbitrary color temperature and CIE standard illuminants.)

Additional information can be found in the white paper: [SSI White Paper \(Updated\)](#)

A tool for calculating the SSI is also available: [SSI Calculator \(Revised\)](#)

Instructions for using the calculator can be found at: [SSI Calculator User Guide \(Revised\)](#)

Additional general information on solid state lighting and how it affects color rendering can be found in the main SSL page: <https://www.oscars.org/science-technology/sci-tech-projects/solid-state-lighting>

Cinematographers see value in an index that provides a level of confidence in color rendering independent of the camera used. We believe this is also applicable to other areas in which quality reproduction rendering or perception of color is important.

Reference: <https://www.oscars.org/science-technology/projects/spectral-similarity-index-ssi>

DJI Osmo Action Review – Hands-on with the New Action Cam

by [Jakub Han](#) | 15th May 2019

Please head to our DJI Osmo Action Versus GoPro HERO7 video by clicking [here](#):

DJI has just announced the Osmo Action, their first action camera and a direct competitor to the GoPro HERO7. It brings some innovative and unique features, like RockSteady stabilization, HDR, De-Warp, and dual full-color screens. Let's take a close look at the Osmo Action in this hands-on review!

DJI is currently one of the most innovative camera gear companies in the market. They have been dominating the drone market in the last few years and are also very successful with their line of gimbal stabilized cameras, called Osmo. Many filmmakers have been waiting for this and today is the day – DJI announces the Osmo Action – their first action camera and a direct competitor to the current king of action cams, the GoPro HERO7.

If you are interested in a side-by-side comparison to the GoPro HERO7, we are publishing a separate article with a video on this exact topic very soon. In this article, I will focus on all the specs and features of the Osmo Action by itself.

DJI Osmo Action – How Good is it?

First of all, the DJI Osmo Action has **dual full-color screens** – one large touchscreen at the back and one smaller front screen right next to the lens. This is the first action cam that actually lets you see yourself when you turn the camera around. This is perfect for vloggers or action sports enthusiasts, who point this back at themselves while doing some crazy stunts. The front screen is square and you can select if the image should fill the screen – of course by cutting off the sides – or if it should show a 16:9 version of the video, with black bars on top and at the bottom.



DJI Osmo Action has full-color front screen

Another innovative feature is the **HDR mode**. When switching it on, the camera gives you considerably more details in the shadows and especially highlights. This is a great feature to have in an action cam, because very often, you will deal with bright sunlight and harsh shadows within the same shot, or quickly changing circumstances. The colors in HDR mode are nice and vivid, and you can really see a lot of details that are not visible in standard mode, even if you use the “flatter” Cinelike-D mode.

Big downside with HDR mode, however, is that the image stabilization does not work in this mode at all. This makes it less suitable for point-of-view action scenes, as the image will be quite shaky. To make matters worse, the rolling shutter distortion is considerably worse in HDR mode, compared to normal filming mode.



DJI Osmo Action has a small tally light on top.

Talking about image stabilization, that's the third huge innovation of the Osmo Action. DJI calls its image stabilizer "RockSteady", and the name really does the technology justice. When you switch RockSteady on, the need for a gimbal literally disappears. It's clear that DJI is leveraging their experience from drones and gimbals in this technology, and they do it very well.

You can take a look at our side-by-side comparison video of the Osmo Action and the GoPro HERO7 to see how the stabilisation technologies compare. I can already tell you that GoPro's Hypersmooth is very good, but RockSteady is better. DJI's stabilization comes at the expense of some wide angle, and you can clearly see the difference in field-of-view once you switch RockSteady on. Having a less wide image has its down- and upsides, but with action cams you usually want a wider image to get close to the action.



The image distortion can be repaired with the in-camera de-warp function.

Because of the wide-angle lens, action cameras suffer from massive image distortion. It is the typical fish-eye look, which can be corrected in post-production. To tackle the distortion automatically, the DJI Osmo Action has a so-called De-Warp feature built in. That's very convenient and it saves the time of doing image correction in post-production. The de-warp effect can be combined with the RockSteady stabilizer, which is nice, but it again crops the image slightly.

DJI Osmo Action – Image Quality

Image quality in general is very decent and appealing, and the Osmo Action supports a range of resolutions and frame rates. It can shoot at up to 4K 60p, 2.7K resolution for up to 60p, and up to 240 frames per second slow motion in 1080p. However, because the video bitrate never goes higher than 100Mbps in H.264 codec, you can see considerable artifacts – especially in the super slow-motion modes.



DJI Osmo Action tops at 60fps in 4K.

In general, despite the available D-Cinelike mode of the Osmo Action, the image looks a bit over-sharpened in high contrast situations. The over-sharpening also amplifies noise in the shadows, in some situations. Unfortunately, there is currently no way to decrease the sharpening in the Osmo Action. In fact, there are no additional image control features apart from changing from a contrasty, colorful “Standard” to a flatter, less saturated D-Cinelike picture profile. You can, however, change the shutter and ISO and set those manually.



DJI Osmo Action tops at 240fps at 1080p.

I hope that DJI will give us controls over these settings – like in the Osmo Pocket or their Mavic drones – via a firmware update soon. It’s really needed and I think there is room for optimization with the overall image, especially the sharpness settings.

The Osmo Action can connect to a smartphone via wi-fi. In the DJI Mimo app, which was updated to support the Osmo Action in addition to the Osmo Pocket, you get a nice preview screen of the camera. There are, however, no additional camera settings that you can’t already access via the camera itself – except for a Denoise option.



The DJI Mimo app gives a live preview image.

DJI Osmo Action – Build Quality

As for the build quality, the DJI Osmo Action lets little to be desired. It has almost the same size as the GoPro, and the design overall is quite similar. It feels very rugged and is shockproof, dustproof and waterproof down to 11 meters depth. What's also great, is that it shares the same accessory ecosystem with GoPro. So, if you were to upgrade from a GoPro, you are able to use the same mounts. I would have preferred to see a default 1/4" tripod thread to be freed from custom accessories, though.

The glass element in front of the lens can be unscrewed and replaced with a custom filter of choice. DJI will offer ND filters (ND4, ND8, ND16, and ND32 density) as well as orange seawater and purple fresh-water filters to use with the Osmo Action. Unfortunately, these filters were not yet available for our review, so we could not test them in the field.



DJI Osmo Action front glass element can be easily unscrewed.

Apart from the square-shaped front color screen, there is also a quite large 2.25" touchscreen at the back of the camera. It uses the whole width of the body because it's 16:9 (different from the GoPro screen which is 4:3). The touchscreen interface works quite well, although not every function can be found easily at first try.

Good news is that the **Osmo Action** uses a custom battery with 1300 mAh, and in our test, the battery lived up to the manufacturer's claims. We were able to get almost 90 minutes of battery life out of one fully charged battery (when shooting 4K/25p or 30p with RockSteady stabilization enabled). However, if you use higher frame rates in 4K, expect battery life to be reduced.

DJI Osmo Action – Key Specs

- Sensor: 1/2.3" CMOS, 12Mpx
- Lens: FOV 145° f/2.8
- ISO range: 100-3200
- Maximum photo size: 4000×3000 (12Mpx)
- Resolution and frame rates in standard mode: 4K (16:9): 60, 50, 48, 30, 25, 24fps; 4K (4:3): 30, 25, 24fps; 2.7K (4:3): 30, 25, 24fps; 2.7K (16:9): 60, 50, 48, 30, 25, 24fps; 1080P: 240, 200, 120, 100, 60, 50, 48, 30, 25, 24fps; 720P: 240, 200fps
- Resolution and frame rates in HDR mode: 4K, 30, 25, 24fps; 2.7K: 30, 25, 24fps; 1080P: 30, 25, 24fps
- Codec and Maximum bitrate: 100Mbps at H.264 (with MOV or MP4)
- Supported SD cards: microSD up to 256GB
- Battery: LiPo 1300mAh
- Dimensions: 65 x 42 x 35 mm
- Weight: 134g
- Front screen: 1.4", 300ppi, 750cd/m²
Back screen: 2.25", 325ppi, 750cd/m²

<https://www.cinema5d.com/dji-osmo-action-review-hands-on-with-the-new-action-cam/>

2019

**NEWCASTLE VIDEO
MOVIEMAKERS Inc.**
www.nvm.org.au



Presents the

NEWCASTLE NATIONAL VIDEO FESTIVAL

Newcastle Video Makers Inc.

will present a public screening of the selected award winning entries at the
Lake Cinema
62 Main Road Boolaroo
16th October 2019 at 7.30 p.m.

**CLOSING DATE
FOR ENTRIES AND ENTRY FORMS
DATE 4th SEPTEMBER 2019**

COMPETITION ADDRESS:

The Competition Secretary
Newcastle National Video Festival
311 Hight Street.
Maitland NSW 2320
AUSTRALIA

Web Address: www.nvm.org.au

For further information
Phone: Ralf Jorg (02) 49336931
Email: ralfjorg@hotmail.com

Entry Fee (Australia): \$A10.00

Entry Fee (International): \$US10.00

Entry fee covers winners trophies and postage to related countries.

Download this form which is interactive complete this entry form, save a copy for yourself and email back to "ralfjorg@hotmail.com"

Direct Bank Deposit Details

Swift / BIC: WPACAU2S
BSB. Number: 704-419
Acc./Mem. Number: 53601

| DETAILS OF ENTRANT | | DETAILS OF PRODUCTION | |
|--|--|---|--|
| Producers name: | | Title of Production: <i>(Mouse over Text Boxes for information)</i> | |
| Postal address: | | | |
| | | Upload Movie to "mowens@y7mail.com" using free file upload service "https://wetransfer.com" 2gb max file. | |
| Postcode: | | Running Time: Min/sec <i>(15 minutes max)</i> | |
| Telephone: | | Category <i>(Tick one box only)</i> | |
| Email Contact Address Below | | <input type="checkbox"/> Documentary | |
| | | <input type="checkbox"/> Drama <input type="checkbox"/> Humour <input type="checkbox"/> Fiction | |
| COPYRIGHT DETAILS OF MUSIC <i>(Tick box/s)</i> | | <input type="checkbox"/> Travelogue | |
| <input type="checkbox"/> Own Composition | | <input type="checkbox"/> Music/Visual Arts | |
| <input type="checkbox"/> Royalty Free | | <input type="checkbox"/> Animation/Experimental | |
| <input type="checkbox"/> Licence Agreement | | <input type="checkbox"/> Group Production <i>(N.V.M. only)</i> | |
| <input type="checkbox"/> I accept responsibility for the music in my production | | <i>(Must Tick Country Origin)</i> <input type="checkbox"/> International <input type="checkbox"/> Australia | |
| Payment Method <i>(Tick)</i> : Direct Deposit <input type="checkbox"/> Cheque <input type="checkbox"/> | | <ul style="list-style-type: none"> • NVM reserves the right to change the categories. • Maximum running time 15mins including titles and credits. (No exceptions). Shorter works are preferred | |
| Payment Date: | | | |

REQUIRED A SHORT SYNOPSIS _____

DECLARATION BY ENTRANT

- I declare that this entry has NOT been made for commercial gain.
- I agree to be bound by the conditions of entry for this competition as shown below.

Signature:.....Date:.....e.g.(21/07/Year)

CONDITIONS OF ENTRY

1. The Newcastle National Video Festival is open to all video, electronic imaging system and film mediums, which are made for pleasure with **no commercial purpose in mind**.
2. All entries must be uploaded and submitted for judging and public screening to the email address "mowens@y7mail.com" using free file transfer service "https://wetransfer.com".
3. Any number of productions may be submitted using a separate form for each entry. **No production to be longer than fifteen (15) minutes** duration. Productions entered in past Newcastle National Video Festivals will not be accepted.
4. Productions by entrants residing in countries other than Australia shall Tick the box in the "International" entries category.
5. Each entry must be registered on the appropriate form (or photocopy) and must be accompanied by a **Fee of \$A10.00 for Australian entries.**
For international entries DIRECT DEPOSIT (in US dollars).
\$US10.00 Payment Direct Deposit to:
"Newcastle Video Moviemakers Inc". **SWIFT/BIC:** WPACAU2S,
BSB: 704-419, **ACC/MEM No:** 53601
6. Entries received without fee or entry form will not be considered eligible for entry into this competition.
7. Video footage and special effects must be produced by the entrant or the group. Stock footage is allowed up to a maximum of 10% of the duration of the entry.
8. Music may be Royalty-Free, Original or used under a licence agreement.
9. Each entry must be provided on a separate file/medium. Multiple entries or entries included on the same file/medium with other productions not intended for the competition will be deemed ineligible.
10. The productions together with their copyright will remain the property of the owners, however the Competition Committee reserves the right to screen any entry more than once and to make a copy in part or full for publicity of the festival or club archives.

11. Credit titles are permitted, but no entry shall carry a title showing success in any other competition.
12. Entries will be previewed by the Competition Committee and any considered below competition standard may be excluded.
13. All entries will be handled with extreme care, but no responsibility for loss or damage will be accepted.
14. All entries and fees received will be acknowledged by e-mail.
15. Entrant productions will be retained without exception by the Competition Committee until after the Public Screening.
16. The entrant will receive a confirmation email that transfer has been received and downloaded ready for judging.
17. Awards will be made to the best entry in each of the categories as listed on the entry form - plus additional awards for the entries judged "Best of Festival", "Best Student/School entry", "Best NVM Group entry" and "Peoples Choice Award". If there are no entries of sufficiently high standard in any category, the judges reserve the right to withhold an award in that particular category.
18. A copy of the judges' comment sheet will be provided by e-mail after presentation night.
19. All entries **MUST** have been completed within the last two (2) years to be eligible for this Festival.
20. All decisions of the judging panel are final and no correspondence will be entered into.
21. No entrant shall be present during the judging of his/her production.

| | | | |
|---|--|---|---|
| <p>Fridge Magnets</p>  <p>Trophies</p> | <p>Accolades</p> <p>AWARDS & PROMOTIONAL ITEMS</p> <p>mike@maitland.bmr.com.au Unit 5/6 Johnson St Maitland 2320</p> <p>Beer coolers Deliver all Over Ph/Fax (02) 49324982</p> <p>www.maitland.bmr.com.au/accolades</p> | <p>Pens</p>  <p>Coffee Cups</p>  <p>Name badges</p>  | <p>Accolades</p> <p>AWARDS & PROMOTIONAL ITEMS</p> <p>Unit 5/6 Johnson St Maitland. 2320.</p> <p>TROPHIES PLAQUES MEDALS FRIDGE MAGNETS MUGS NAME BADGES T-SHIRTS PENS STUBBIE HOLDERS KEYRINGS</p> <p>mike@maitland.bmr.com.au www.maitland.bmr.com.au/accolades PH/FAX: (02) 4932 4982</p> |
|---|--|---|---|

CLUB MEETINGS

WHEN: The first Wednesday of each month at 7.30pm. (Check Club Website)

WHERE: Jesmond Neighbourhood Centre
44 Mordue Parade, Jesmond 2299

CORRESPONDENCE TO:

The Secretary,
Newcastle Video Moviemakers Inc.
311 Hight Street, Maitland NSW 2320

Email: contact@nvm.org.au

Website: www.nvm.org.au

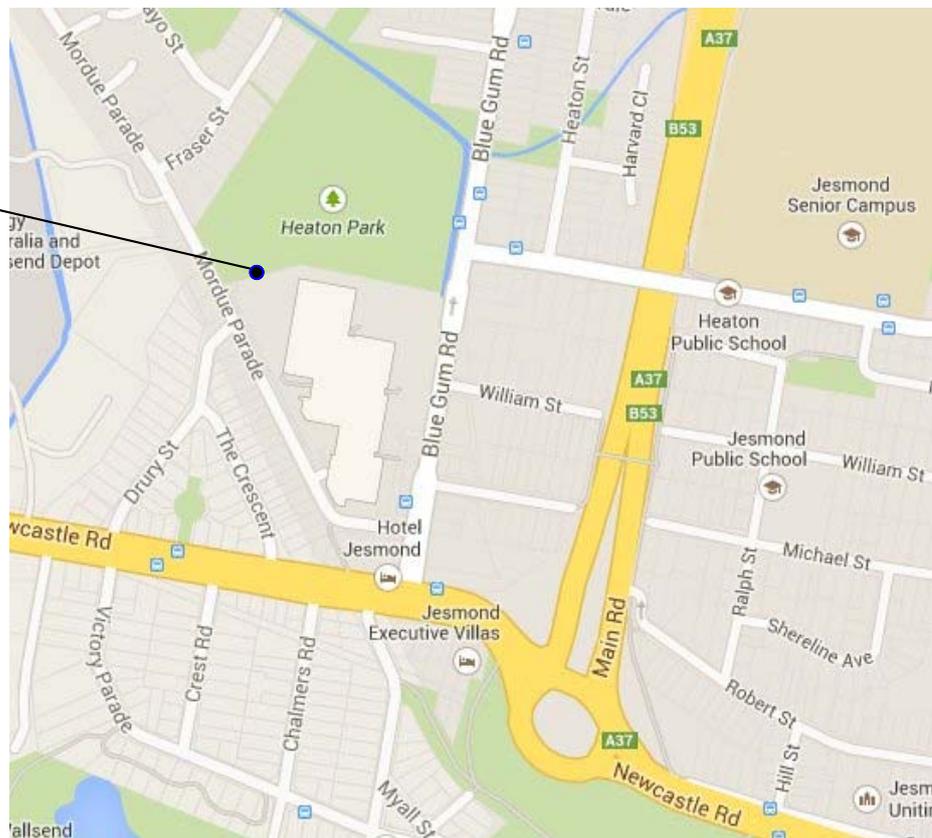
Committee Meetings: As the Constitution states, there must be at least 3 committee meetings a year. These meetings will be announced by the president or any committee member at the monthly club meetings. A committee meeting will be held at a committee members house. All club members are welcome to attend, however a courtesy call to the committee member concerned would be appreciated.

DISCLAIMER

In regard to products, services and/or procedures which are either advertised or mentioned in this magazine, members should determine for themselves the reliability and/or suitability of these products for their own particular requirements. Newcastle Video Moviemakers inc., cannot accept responsibility for any products or service statement made herein and the opinions or comments by contributors are not necessarily the views of the club, its committee, its members or the editor.

Location of
NVM Club room

44 Mordue Pd
Jesmond
Neighbourhood
Centre



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