

60th Annual LSPS Convention Virtual and In-Person



April 14-16, 2021



**Margaritaville Resort Casino
777 Margaritaville Way
Bossier City, LA 71111**

Hosted by the Louisiana Society of Professional Surveyors and LSPS District 4

L'ARPELITEUR LOUISIANE

FEBRUARY 2021

VOL. 60 NO. 1

9643 Brookline, Ste. 108
Baton Rouge, LA 70809-1488
Office: 225/925-5800
Fax: 225/925-5802
lsps@lsps.net • www.lsps.net

INSIDE THIS ISSUE:

Message from the President.....	3
Brad Holleman	
2021 Convention Update.....	4-6
LSU C&G & Deflection of the Vertical.....	7-9
Nicholls Geomatics Program Update ...	10
Legislative Update.....	11
NSRS.....	12
Membership Application.....	13
District Information.....	14
Scholarship Application.....	15
Obits.....	16-17
Sustaining Members.....	19

Special Thanks to our Contributing Writers.

Articles submitted will be considered for publication and should be emailed to: lsps@lsps.net. Please contact the office with any questions.

The officers and board of LSPS and editors of this publication do not necessarily endorse opinions expressed by individual writers included herein.



The *L'Arpeur Louisiane* is published quarterly as a service to the members of the Louisiana Society of Professional Surveyors. As stated in the LSPS Articles of Incorporation, the LSPS is "organized for the following purposes and to carry out the same:

Enhancing the status of the Land Surveying Profession by:

- 1) Maintaining high technical and cultural standards for entrance to the Society.
- 2) Cooperating with educational institutions in the maintenance of high standards of education in Land Surveying.
- 3) Requiring a high standard of ethical practice by members of the Society.
- 4) Aiding in the adoption of high standard of attainment for the granting of the legal right to practice Professional Land Surveying.
- 5) Fostering among students of Land Surveying the study of philosophy and history, tradition and achievement, duties and social functions of the Land Surveying Profession.
- 6) Encouraging the personal and professional development of young Land Surveyors.
- 7) Supporting activities looking to the increased employment of Land Surveyors and seeking new opportunities for service in Land Surveying."

LSPS ADVERTISING RATES:

SIZE	COST PER ISSUE	PER YEAR
FULL PAGE INSIDE	\$700.00	\$2200.00
FULL PAGE BACK COVER	\$800.00	\$2800.00
½ PAGE	\$400.00	\$1400.00
¼ PAGE	\$200.00	\$600.00

All ads are prepaid. Ad and payment should be sent to LSPS by the 15th of the month prior to publishing. Issues are published in August, November, February and May. Please mail to address listed above.

*Prices apply to camera-ready copy.
A charge will be added for creation of an ad or art work.*



PRESIDENTIAL PRIVILEGE



Brad Holleman
LSPS President

Dear LSPS Members,

Happy New Year...2020 is gone!

With the new year comes new resolutions. While our goals at LSPS have not changed, the method in which we achieve these goals has gone more digital. We had a successful 2020 convention with an online-only format and our board meetings have been done via webcam. While video conferencing is a great tool, nothing replaces meeting in person so, we are planning on having the upcoming 2021 convention in a hybrid format. Unfortunately, not all will be able to attend due to capacity requirements but, please save the date for April 14th through the 16th.

I would like to use my last address to thank everyone. I will always cherish my year serving as your LSPS President. It was a challenging year, but we made it through. I look forward to serving one more year on the LSPS Board as your past president.

Respectfully,

Brad Holleman

**WELCOME THESE NEW
LSPS MEMBERS!**

**Bradford Habetz Millett
Esra Tekdal Yilmaz**



PLS Derek Wheat with his dad, LA Representative William "Bill" Wheat, Jr. who was honored as an Honorary Member of LSPS. Representative Wheat was very helpful to LSPS with legislation during a recent special session of the legislature.

WELCOME TO THE 60th ANNUAL LSPS CONVENTION

APRIL 14-16, 2021

Margaritaville Resort Casino, 777 Margaritaville Way, Bossier City, LA 71111

ONLINE REGISTRATION ONLY MARCH 8TH – April 9th

Due to COVID-19 restrictions we are limited to 75 members to attend in person. With this restriction we are opening the in-person registration to Resident Registered Members only. Once the registration is open, we will only be able to take the first 75 who register and choose in-person attendance. All others will have the opportunity to watch the seminars online after the live convention takes place. We will have ONLINE REGISTRATION ONLY.

Registration will reopen after the live convention for individual classes only, with a price increase.

Please see website for price information

Join us for these special events:

- For you Golfers, the **LSPS Golf Tournament** will be held on Wednesday, April 14th at Northwood Hills Golf Club, 5000 Northwood Hills Drive, Shreveport, LA 71107
 - Fee for the golf tournament is \$75.00 per person and includes golf cart and lunch.
 - **Registration & Lunch at 11:00 A.M**
- “Ice-Breaker” reception will be held on Wednesday, April 14th from 7:30-9:30 P.M.
- All meals will be provided on Thursday and Friday.
- LSPS is planning a **Surveying Party** Thursday evening in the Riverview Brewhouse.
- The LSPS Annual Meeting will be held on Friday, April 16th.

Hotel Details**

Margaritaville Resort Casino
777 Margaritaville Way
Bossier City, LA 71111
(855) 346-2486

For the LSPS Convention Guest Room
Rate,
you may call Margaritaville at
1-855-FIN-CITY (346-2489)

LSPS Convention Guest Room Rate:

\$79 per evening plus tax and

\$100 incidental fee to be refunded.

Standard King, Premium King, Standard Queen
(as available)

Our group code is: **S04PS21**

Hotel website link provided on our website at:

lsps@lsps.net

Hotel deadline for room rate is March 30, 2021

LSPS District 4 - Convention Contacts:

Jason Westerman, Convention Chairman 318-780-8701

Randy Noble, Golf Coordinator 225-454-8925

Liz Kearney, LSPS Executive Administrator

9643 Brookline Avenue, Suite 108, Baton Rouge, Louisiana 70809

Phone (225) 925-5800 lsps@lsps.net

HOPE TO SEE YOU THERE!

2021 LSPS Convention

Bossier City, LA

April 14-16, 2021

13 PDHs Total

Wednesday, April 14th

11:00 am **LSPS ANNUAL GOLF TOURNAMENT** (Registration/lunch-11:00am)
Tomahka Golf Club, 222 Slim Lemoine Road, Marksville, LA 71351

5:00 pm—6:30 pm **Convention Registration – Paradise Theater**

6:30 pm—7:30 pm **Ethics (1 PDH)** - Jeff Pike, P.E.

7:30 pm—9:30 pm **EXHIBITOR RECEPTION – Paradise Theater**

Thursday, April 15th

7:00 am—4:00 pm **Convention Registration/Check-In – Paradise Theater**

7:00 am—7:50 am **Breakfast with Exhibitors! – Paradise Theater**

7:50 am—8:00 am **Opening Ceremonies**

8:00 am—11:50 am **The Art of Retracement (4 PDH)**
- Gary Kent, PS

12:00 pm - 1:00 pm **LUNCHEON—Society Updates**

12:30 pm—1:00 pm **Exhibitor Demonstration/Presentation**

1:00 pm—4:50 pm **2021 ALTA/NSPS Land Title Surveys (4 PDH)**
- Gary Kent, PS

5:00 pm—6:00 pm **DINNER**

6:00 pm—10:00 pm **SURVEYORS PARTY—SOCIAL EVENT — Crawfish Boil
@ Riverview Brewhouse**

Friday, April 16th

7:00 am—8:00 am **Convention Registration/Check-In – Paradise Theater**

7:00 am—8:00 am **Breakfast with Exhibitors! – Paradise Theater**

8:00 am - 9:00 am **LSPS ANNUAL AWARDS AND Business Meeting (1 pdh)**

9:15 am—10:15am **Louisiana Surveying Disputes in the Courts (1 PDH)** - Jay Caraway

10:30 am—12:30 am **Standards of Practice - Louisiana (2 PDH)** - Ryan Estess, P.E., P.L.S. & Charlie Coyle, P.L.S.



2021 LSPS Golf Tournament

Wednesday April 14th, 2021



Northwood Hills Golf Club

5000 Northwood Hills Drive

Shreveport, LA 71107

Events:

Registration & Lunch - 11:00am

Shotgun Start - 11:30am

Cost:

\$75.00 per player

(includes lunch & golf cart)

Awards:

Lowest Scoring Team (4-Person Scramble)

Longest Drive

Closest to the Pin



Questions - Please Contact:

Randy Noble - (318) 464-8633



LSU C4G AND DEFLECTION OF THE VERTICAL

By Benjamin A. Fernandez, PE, LSI

The LSU Center for GeoInformatics (C4G) is in the midst of a multi-year NGS grant; a primary goal of which is to measure gravity throughout the State of Louisiana. We have obtained highly-specialized equipment to accomplish this, and we have trained our personnel to match. Our efforts will directly assist and inform the NGS Height Modernization program; with the new 2022 national datum as the result.

Over more than the last decade, The National Geological Survey (NGS) has been collecting and analyzing data with the intent of updating our two national datums, NAD83 and NAVD88. Supplanting the NAD83 horizontal datum will be four Terrestrial Reference Frames (TRFs) which will cover the United States and its territories in the North American, Pacific, Marianas, and Caribbean regions. Each region will have its own tectonic component which will allow each TRF to be fixed to their respective tectonic plate and will move with time. The NAVD88 vertical datum will be replaced with a single geopotential datum.

NAVD88 established a value for a point at Father Point/Rimouski, Quebec, Canada, and used it as the origin point for the datum. A leveling network was then used to connect it to the rest of the North American continent. As opposed to establishing a point on the surface of the Earth, the new datum will use the center of the Earth as its origin point. Determined using GNSS satellite orbit data, this reference point will not be affected by outside forces such as tectonic forces or sea-level rise. This new datum will be referred to as the Geopotential Model of 2022 (GM2022). From the GM2022, three more-accurate regional products will be developed: The model of the Geoid surface (GEOID2022); The model of the Deflection of the Vertical (DEFLEC2022); and finally, a model of gravity at the earth's surface (GRAV2022).

The space-based projects GRACE & GOCE have been used to create the previous geoid models GEIOD12B and GEIOD18. As opposed to the idealized ellipsoidal model of the Earth, the shape of the geoid is an irregular, lumpy shape whose surface is dimpled like an orange. This shape is calculated by modeling a surface of equal gravitational force, which can be visualized as the surface of the ocean without any tidal or wind effects. The distribution of mass as well as local geologic features affect the and direction of gravitational forces and cause variations along surface. NGS has calculators for each of their geoid models to geoid heights and slopes from Lat/Long coordinates on their (<https://geodesy.noaa.gov/GEOID/>)

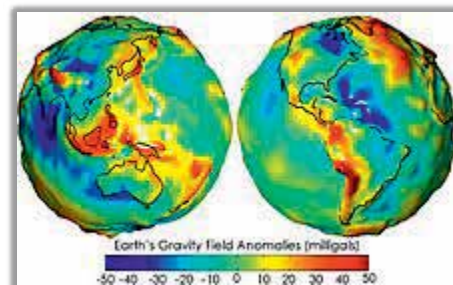


Figure 1: Earth's geoid (exaggerated for detail)

modeled by visualized as uneven magnitude the geoid determine website.

NGS has used airborne and space-based gravity projects to gravity and establish values for its geoid models. Gravity for the the American Vertical Datum (GRAV-D)

(<https://geodesy.noaa.gov/GRAV-D/index.shtml>) is their most current project which involves installing sensitive gravimeters on aircraft which fly patterns and record data for the entire country. The goal for this project is to define the geoid for the new vertical datum to 1 centimeter at any place and time. Projected to be completed in 2022, this project is more than halfway complete.

measure
Redefinition of

As part of their NGS grant, LSU's C4G has been tasked with obtaining and providing terrestrial gravity measurements for the State of Louisiana in support of NGS efforts. C4G is measuring absolute gravity at CORS sites throughout the State, establishing reference marks with millimeter accuracy at these sites for the public's use. The addition of another describing [factor] - the slope of the gravity field - can also be measured to better define the local gravity field. A normal vector to this slope defines the plumb line, which is the direction of the local gravitational pull. This [factor] can be measured and is called the Deflection of the Vertical.

The plumb line is always perpendicular to the gravitational field. The Deflection of the Vertical (DoV) is a direct measurement of the angular difference between the plumb line and the ellipsoid normal. Affected by local geological features such as mountains and salt domes, the DoV describes the slope of the gravity field at a point referenced to an ellipsoid; values typically range in arc-seconds but can reach values of +/- 1 arc-minute on the North American continent.

In order to measure the DoV, C4G sourced and has recently obtained a Digital Zenith Camera (DZC). As no commercial or off-the-shelf supplier manufactures this device, academic institutions in Germany, Switzerland, and Latvia have all designed DZCs, which combine a computer, telescope, digital camera CCD, GPS, and tiltmeter into a single device. Factors including portability and cost led to the selection of the University of Latvia's VESTA DZC.

The first production model of the Vesta, the camera [add pic] is a relatively portable device compared to its larger cart-mounted contemporaries designed other institutions. Mounted on a specially-designed tripod ring table with standard tripod legs, the Vesta can be deployed easily in the field with a single operator. It is powered with a 12V motorcycle battery and is monitored remotely by a secondary computer via Wi-Fi.

The operation of the camera is as follows:

1. The tripod is deployed at the desired station and leveled using a digital bubble level to +/- 0.5°
2. The camera is placed on the tripod table and checked that it rotates freely
3. The 12V power source applied and individual device components powered up
4. The monitoring laptop initiates the observation program using a Remote Desktop session
5. For each station or azimuth position of the program, the DZC is leveled using a High-Resolution Tiltmeter (HRTM)
6. A series of frames are recorded of the zenith at each station, then the device is lowered and rotated to the next position. These rotations are repeated until the program is completed, ~45 minutes
7. Two programs are measured at a site and a third is run if there is a disagreement between the first two
8. Once an agreement is obtained, the DZC is packed up and can be moved to the next site

The average GPS location during the session is used to determine the geodetic position of the observation. At the conclusion of the observation, the user will have obtained over 200 frames which are then post-processed. Postprocessing utilizes a star almanac consisting of 1.3 billion stars. With GPS timestamps for each frame and correcting for the Earth's wobble on its axis, the astrogeodetic latitude and longitude with zenith are determined for each frame. Superimposing the data from the tiltmeter during each frame, the zenith is established normal to the ellipsoid. A result is determined and separated into N-S (eta) and E-W(xi) components And repeated for all frames in a session.

After a brief learning period during which C4G personnel were trained in the operation of the DZC, it was deployed in the field in late 2019. After a handful of CORS station observations in 4Q 2019, it was noted that the night DZC operations did not mesh well with our normal daytime observation operations due to the long hours involved and uncertainty regarding weather conditions. The recent COVID-19 concerns and social distancing have shut down most of C4G's normal observations, the DZC operation at night and ability to be deployed with a single-operator have allowed these operations to resumed in earnest. To-date during this period, 12 sites consisting of over 40 individual sessions have been observed.

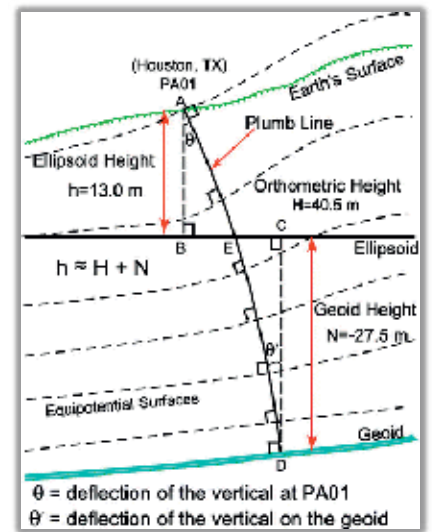


Figure 2 Deflection of the Vertical showing gravity field lines

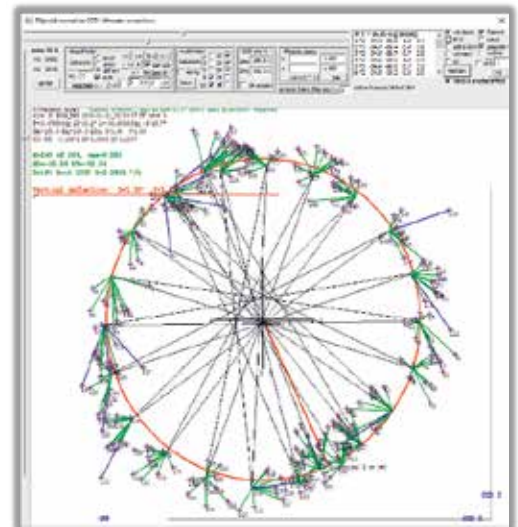


Figure 3 ZT software result example

A summary of the results is in Table 1, below.

Table 1 Deflection of the Vertical results during the COVID-19 isolation period

2020 C4G DoV OBSERVATIONS			
SITE	OBSERVATION	N	E
		Xi	Eta
Galvez	GVMS RM2 #1 avg	1.44	-1.3
	DEFLEC12B	1.71	-0.97
	DEFLEC18	1.61	-1.28
Donaldsonville	AWES RM2 #1 avg	-1.24	4.16
	Historical	-2.69	4.1
	DEFLEC12B	-0.99	4.24
	DEFLEC18	-1.25	4.1
Morganza	Morganza ZM1 avg	-1.47	-0.28
	Historical	-1.21	-1.32
	DEFLEC12B	-1.21	-0.21
	DEFLEC18	-0.82	-0.41
Killian	CRMS PO SM30 avg	1.75	-1
	DEFLEC12B	2.03	-0.91
	DEFLEC18	1.84	-0.87
Chipola	CHIP RM1 avg	-2.45	-0.25
	DEFLEC12B	-2.66	-0.35
	DEFLEC18	-2.49	-0.07
Hammond	HAMM RM2 avg	2.36	-0.71
	DEFLEC12B	2.67	-1.05
	DEFLEC18	2.68	-0.79
Amite	P 179 avg	0.08	0.2
	DEFLEC12B	0.43	-0.11
	DEFLEC18	0.54	0.15
Kentwood	K 20R avg	-2.45	0.34
	DEFLEC12B	-1.86	-0.11
	DEFLEC18	-2.2	0.29
Franklinton	D 80 avg	-0.93	2.59
	DEFLEC12B	-0.38	2.28
	DEFLEC18	-0.34	2.38
Bogalusa-CORS	BOGA RM2 avg	1.32	2.35
	DEFLEC12B	1.43	2.7
	DEFLEC18	1.36	2.6
Bogalusa	XA 51 avg	0.83	2.64
	DEFLEC12B	1.24	2.92
	DEFLEC18	1.14	2.77
Covington	COVG RM1 avg	3.07	1.34
	DEFLEC12B	3.37	1.12
	DEFLEC18	3.7	1.27

From the table it can be seen that for most locations the observed DoV does not vary from the DEFLEC12B and DEFLEC18 models by more than 0.3 arc-seconds. Historical information for two of the sites from a 1931 DoV survey is included only for qualitative comparison as the reference ellipsoid used in their calculation differs from the DZC reference ellipsoid in current use.

Even if the current social distancing protocols need to be extended through the end of the year, C4G has many sites (>30) that remain to be observed and can shift our operations to accommodate. With more experience and adjustments to the capture program parameters, it should be possible to optimize the time at each site and observe 4 or more sites in a typical 7-hour darkness window, weather permitting. Once the primary sites are observed and the data tabulated, any gaps in the network can be identified and easily filled in.

How does this affect the day-to-day Land Surveyor? Imagine the geoid model as a gridded topo from which contours are developed. Shrinking the size of the grid will increase the resolution of the resulting contours. DoV information tells in what direction the geoid is sloping at that point. So, imagine a salt dome (low gravity) falls in between the gridding points on the model. Interpolating the geoid there will be estimated to be sloping between the data at the points. Knowing the DoV may inform the model that there is a deviation between the points to be accounted for. All of which leads to a most desirable goal of accurate elevations (orthometric heights) with which to work and plan, not a bad thing to have in Louisiana.

The LSU Center for GeoInformatics is the home of the Louisiana Spatial Reference Center; creator and host of Louisiana's NGS CORS network. LSU created C4G to focus on research and services in Geodesy and GeoInformatics; as a result, C4G has established Louisiana's only Statewide GPS/GNSS Real-Time Network, C4GNet which is entirely funded by subscribers to the RTN.

Benjamin Fernandez is a Professional Engineer and Surveyor Intern for the Center for GeoInformatics at LSU as well as a musician. He joined C4G in 2019.



NICHOLLS GEOMATICS PROGRAM UPDATE

Dr. Esra Tekdal-Yilmaz

Greetings from the Geomatics Program at Nicholls State University,

The Geomatics program at Nicholls State University is still teaching courses face to face. We are getting ready for the ABET visit which will take place this year and our Alumni and Employer ABET Surveys are still active and waiting for your contribution.

Dr. Balaji Ramachandran was recently appointed as a Subject Matter Expert for the Louisiana State Watershed Initiative (LWI). He will be helping LWI to develop regional-scale capacities and partnerships at the academic institutions across our state. He recently

received the following grants: a small exploratory NASA EPSCoR grant titled "Algorithm Development to better define wetland loss and gain in the Mississippi Delta". It is a joint grant, and 14K is the Nicholls portion and 30,000\$ grant from Terrebonne Parish Consolidated Government titled "Data Maintenance and Geomatics Program Funding".

Please don't forget to complete ABET Accreditation Employers and Alumni survey. Thank you all for your support of Nicholls Geomatics.

ENHANCE YOUR CAREER OPPORTUNITIES

BECOME A CERTIFIED SURVEY TECHNICIAN (CST)

This four-level certification program indicates official recognition by NSPS that a person can perform surveying tasks at a specific technical level. Certification provides employers with a method of determining job assignments and advancement since certification is an indication of one's ability to perform specific job tasks. Increase Your Skills. Enhance Your Career Opportunities. Set a Straight Course to Your Future. Become a Certified Survey Technician (CST)!

NSPS CST
CERTIFIED SURVEY TECHNICIAN

learn more at nsp.us.com
+1 (240) 439-4615 Ext. 112

Training now available @ www.learnnsp.com

Reducing Utility Risk

At T2, we help lower construction costs, minimize risk, and avoid costly utility damage.

We have decades of experience, top notch equipment, and processes to identify, mitigate, manage risks, keeping your projects moving forward.

- Subsurface Utility Engineering
- Utility Coordination
- Surveying Services
- Terrestrial & Mobile LiDAR
- Construction Management

For more information:
Suzanne McCain | 225 900 8683
info@T2ue.com
www.T2ue.com

T2 utility engineers

Thank You!
FOR RENEWING YOUR LSPS MEMBERSHIP!!



LEGISLATIVE UPDATE

By: Harper Duncan & Associates, LLC

We are preparing for the 2021 Legislative Session. The Session will convene Monday, April 12, 2021 and adjourn Thursday, June 10, 2021. This will be a fiscal session and Legislators will be limited to 5 bills that are general in nature. Bills are slowly starting to be filed and we expect the majority of bills to be filed closer the March 31st deadline. We will be monitoring legislation as it is filed and will send a comprehensive list of any bills that could pertain to the Louisiana Society of Professional Surveyors.

There have been a few changes to committees: Rep. Cedric Glover has been appointed to the House Transportation, Highways and Public Works Committee. Rep. Ed Larvadain is no longer on House Transportation, Highways and Public Works Committee. Below is a list of members on key committees that pertain to LSPS and the surveyor industry. For a full list of Legislative Committees and members go to <https://legis.la.gov/Legis/Home.aspx>.

House of Representatives Commerce Committee	House Committee on Transportation, Highways & Public Works
Representative Paula Davis, Chairman Representative Stephanie Hilferty, Vice Chair Representative Kenny Cox Representative Royce Duplessis Representative Bryan Fontenot Representative Brett Geymann Representative Jonathan Goudeau I Representative Kyle M. Green Jr. Representative Paul Hollis Representative Edmond Jordan Representative Danny McCormick Representative Markham Scott McKnight Representative Candace N. Newell Representative Vincent “Vinney” St. Blanc III Representative Phillip Eric Tarver Representative Polly Thomas Representative Debbie Villio Representative Ryan Bourriaque	Representative Vincent J. Pierre, Chairman Representative Ken Brass, Vice-Chairman Representative Mack Cormier Representative Kathy Edmonston Representative Michael “Gabe” Firment Representative Barbara Reich Freiberg Representative Foy Bryan Gadberry Representative Cedric Glover Representative Dodie Horton Representative C. Travis Johnson Representative Pat Moore Representative Robert “Bob” Owen Representative Charles Owen Representative Rodney Schamerhorn Representative Larry Selders
Senate Committee on Commerce, Consumer Protection & International Affairs	Senate Committee on Transportation, Highways & Public Works
Senator Ronnie Johns, Chairman Senator Cameron Henry, Vice-Chairman Senator Mark Abraham Senator Troy Carter Senator Patrick Connick Senator Cleo Fields Senator Jay Morris Senator Karen Carter Peterson Senator Mack “Bodi” White	Senator Rick Ward, III, Chairman Senator Patrick McMath, Vice-Chairman Senator “Louie” Bernard Senator Barrow Peacock Senator Rogers Pope Senator Edward J. Price Senator Gary Smith

Issue 23 January 2021

NSRS Modernization News

For all issues of **NSRS Modernization News**, visit:
geodesy.noaa.gov/datums/newdatums/TrackOurProgress.shtml

New Technical Paper Released

A new paper relating to the modernized NSRS was released recently. It is:

[NOAA Technical Memorandum NOS NGS 86 \(Quantifying Systematic Error When Using Axial Rotation Rates Rather Than Geographic Euler Pole Parameters When Describing Tectonic Plate Rotation\)](#)

Updates to Blueprint Documents

The release of updated versions of the three “Blueprint” documents was slightly delayed. All three are now expected to be released in the first quarter of calendar year 2021.

Retiring U.S. Survey Foot

On October 5, 2020, a [Federal Register Notice](#) announced the final decision to deprecate the U.S. survey foot on December 31, 2022. After that date, the U.S. survey foot will be superseded by the international foot definition (1 foot = 0.3048 meter exactly) in all applications. This action is coordinated with the National Institute of Standards and Technology (NIST) and is independent of the NSRS modernization timeline.

Although the deprecation date is prior to rollout of the *modernized* NSRS, it will have no effect on users of the *existing* NSRS. NGS will continue to provide the U.S. survey foot in products and services where it is currently supported, such as the State Plane Coordinate System of 1983 and 1927, but it will not be available for any component of the modernized NSRS (including SPCS2022 and vertical

coordinates). Retiring the U.S. survey foot before NSRS modernization ensures a timely and orderly transition to the international foot definition for NGS and the geospatial community.

Progress in Ongoing Projects

There are currently **23 ongoing projects** directly related to NSRS modernization around NGS. Here are highlights from one:

GRAV-D airborne campaign (Project Manager: Jeffery Johnson)

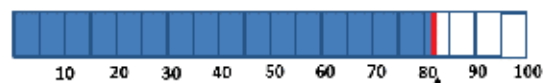
GRAV-D completed data collection for three blocks in the fall of 2020. The blocks completed and queued for processing are: ES08 over Alabama, eastern Mississippi, and much of Georgia; CS11 over parts of Arkansas, Kansas, Missouri, Oklahoma, and Tennessee; and PN04 over eastern Oregon and western Idaho. Flights to complete coverage of Hawaii are scheduled to begin on January 15.

Also, a new GRAV-D schedule was adopted, aligning with the delayed release of the modernized NSRS as announced in June 2020. The new 100% completion target for GRAV-D is June 30, 2024.

GRAV-D progress last quarter: **up 2.1% to 84.0%**

ON (new) Schedule!

Recently: AL, MS, GA, AR, KS, MD, OR, IN, OK, IL



Schedule: 84.0%



Louisiana Society of Professional Surveyors

Affiliate of the National Society of Professional Surveyors

9643 Brookline Avenue, Suite 108, Baton Rouge, LA 70809 • Phone (225)925-5800 • Fax (225)925-5802

lsps@lsps.net • www.lsps.net

PLEASE COMPLETE THE FOLLOWING SPACES:

Registration Number: _____

Name: _____
LAST FIRST MIDDLE

P.L.S. P.E. Other _____

Home Address: _____
STREET CITY & STATE ZIP CODE

Home Phone: _____

Business Affiliation: _____

Position or Title: _____

Business Address: _____
STREET CITY & STATE ZIP CODE

Business Phone: _____

Fax Phone: _____

E-MAIL: _____ UPON MEMBERSHIP ACCEPTANCE, NAME, EMAIL, WORK AND/OR HOME PHONE NUMBER CAN BE ADDED TO THE WEBSITE DISTRICT CONTACT PAGE. YES(CIRCLE CHOICE) _____ No

Education: _____
SCHOOL DATE GRADUATED DEGREE

Surveying Experience _____
YEARS

LSPS Member SPONSOR:

Name: _____ Address: _____

Telephone: _____ Signature _____

I hereby apply for admission into the Louisiana Society of Professional Surveyors as a _____ Member, and agree to comply with the Charter, By-Laws and the Code of Ethics of the Association. Please assign me to the following district:

- | | | |
|--|--|---|
| District 1 – New Orleans <input type="checkbox"/> | District 2 – Houma <input type="checkbox"/> | District 3 – Lafayette <input type="checkbox"/> |
| District 4 – Shreveport <input type="checkbox"/> | District 5 – Monroe <input type="checkbox"/> | District 6 – Baton Rouge <input type="checkbox"/> |
| District 7 – Lake Charles <input type="checkbox"/> | District 8 – Alexandria <input type="checkbox"/> | District 9 – Covington <input type="checkbox"/> |
| | | Out of State <input type="checkbox"/> |

Date: _____

APPLICANT'S SIGNATURE

CLASSES OF MEMBERSHIP

RESIDENT REGISTERED MEMBER

Any person whose legal residence is the State of Louisiana and holding a license from the State of Louisiana authorizing such person to engage in the practice of Land Surveying. Resident Registered Members shall be entitled to vote on all matters and hold any Office in the Corporation.

INITIATION FEE \$10.00 ANNUAL DUES \$180.00
INCLUDES NSPS MEMBERSHIP

NON-RESIDENT REGISTERED MEMBER

Surveyors registered in the State of Louisiana but not a resident of Louisiana. Non-Resident Members shall be entitled to vote but shall not be eligible to hold any Office in the Corporation.

INITIATION FEE \$10.00 ANNUAL DUES \$140.00

STUDENT MEMBER

Any full-time undergraduate student of a college or vocational school recognized by the Board. Student Members shall not be eligible to vote or hold any Office in the Corporation.

ANNUAL DUES \$20.00

ASSOCIATE MEMBER

Any person working toward licensure, land survey intern, or surveyor not registered in Louisiana, recognized and so admitted by the Board of Directors. Associate members shall not be eligible to vote or hold any Office in the Corporation.

INITIATION FEE \$10.00 ANNUAL DUES \$55.00

AFFILIATE MEMBER

Any person not included within the definitions above provided in paragraphs 1, 2, 3 and 4 interested in advancing the cause and aims of the Corporation. Affiliate Members shall not be eligible to vote or hold any Office in the Corporation.

INITIATION FEE \$10.00 ANNUAL DUES \$35.00

SUSTAINING MEMBER

Any firm or individual desiring to support the aims and objectives of the Association, who may or may not be entitled to one of the foregoing classes of Membership, may become a Sustaining Member upon application and approval by a majority vote of the Board of Directors. Sustaining Members shall not be eligible to vote or hold any Office in the Corporation, however, if a Sustaining Member also holds another class or other classes of membership that Sustaining Member class shall not infringe upon such rights and privileges.

ANNUAL DUES \$300.00

Credit card# _____

Expiration Date: _____

Please return completed form with Initiation Fee and Annual Dues to LSPS at the address above.

Rev.04/20



LSPS DISTRICT INFORMATION

DISTRICT	CONTACT INFO
District 1	John Teegarden jteegarden@ascellc.com
District 2	Andrew Szush andrew.szush@tbsmith.com
District 3	Shawn MacMenamin smacmenamin22@gmail.com
District 4	Jason Westerman redchuteland@gmail.com
District 5	Jon Braswell jbraswell@sehuey.com
District 6	Patrick Staiano pstaiano@ntbainc.com
District 8	W. Aaron Wood aaron.wood@woodsurveying.com
District 9	Jules Toups jules.toups@tbsmith.com

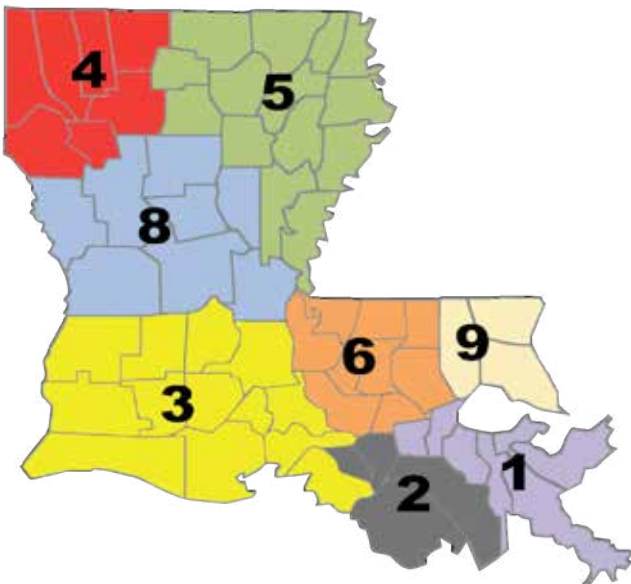
WHY ATTEND A DISTRICT MEETING?

Networking – Who knows more about opportunities in surveying, than those active in it?

Educational Benefits - Want to stay of top of our profession? Most meetings offer opportunity for upgrading your experience through top speakers in our field.

Leadership Opportunities – It is not enough to just join a district. Take advantage of opportunities to get involved in committee work, serve some time as an officer, and help coordinate events. The more active you are, the more visible you become to other members. Leadership roles reflect well on you, and on the company that employs you. It proves they hired a winner!

If you are not an LSPS member, we would like to invite you to attend a District meeting in your area. Contact the LSPS office at lsps@lsps.net , or the chairman in your area for details about upcoming meetings.



LSPS Districts

We would like to invite you to attend a District meeting in your area. Contact the LSPS office at lsps@lsps.net or the chairman in your area for details about upcoming meetings.

LOUISIANA SOCIETY OF PROFESSIONAL SURVEYORS EDUCATION FOUNDATION

9643 Brookline Avenue, Suite 108, Baton Rouge, Louisiana 70809 - (225) 925-5800

SCHOLARSHIP APPLICATION

A \$1000 Scholarship is awarded to a High School Senior residing in Louisiana, planning to pursue a career in surveying through the "Geomatics" program offered at Nicholls University. The scholarship is awarded in 4 equal payments over a 4-year period, as long as the recipient remains a full-time student and maintains a 3.0 cumulative grade point average. The Foundation requires that the recipient submit their class schedule at the beginning of each semester and their grades at the end of each semester.

Return this application along with:

- School transcript,
- Three character recommendations in the form of letters to LSPS (no relatives) and extracurricular activities to the address above. **DEADLINE March 1, 2021.**

1. **Personal Information**

Name _____

Address _____ Parish _____

_____ Phone _____

Parent/Guardian _____

2. **High School Information**

School Name _____ Phone _____

School Address _____

Principal/Counselor _____

THIS SECTION MUST BE CERTIFIED BY YOUR HIGH SCHOOL COUNSELOR

Academic Background

ACT Composite Score _____

High School Grade Point Average _____ (seven semesters)

Signature of High School Counselor



In Memoriam...



Lovelace "L.J." Joseph Comeaux Jr.

New Iberia - Funeral services were conducted for Lovelace "L.J." Joseph Comeaux, Jr., age 89, at 3:00 pm on Monday, November 23, 2020 at Evangeline Funeral Home of New Iberia. Pastor Gabe Smith of Our Saviors Church in Broussard officiated. Interment followed at Memorial Park Cemetery. A visitation took place at the funeral home on Monday from 10:00 am until the service time.

A native and resident of New Iberia, Mr. Comeaux passed away on Thursday, November 19, 2020 at his residence surrounded by his loving family.

Lovelace, better known as "L.J." or "Mookie", was a loving father, grandfather, great-grandfather, brother, and friend. He was a kind gentleman who enjoyed the simple life of country living. L.J. was a hardworking man who took immense pride in his career. He worked for 45 years as a civil engineer at Avery Island Salt Mine before starting his own land surveying company. He owned and operated L.J. Comeaux Land Surveying for 20 years. L.J. enjoyed music, especially Elvis. He will be truly and deeply missed by all those who knew and loved him.

He is survived by his son, Kevin Comeaux, Sr. (Sherlyn); daughters, Julie Comeaux Stevens and Alisa Comeaux Grisaffe (Steve); step-daughter who he loved as his own child, Stacie Disotell; sister, Bonnie Comeaux Bourque; son-in-law, Mark Stevens grandchildren, Kevin Comeaux, Jr., Candace Comeaux, Juliana Duet, Kayla Gaudet, Austin Fuselier, Christopher Richardson, Kristen Richardson Taylor Disotell, Madison Disotell, Rylie Disotell, John Stevens, and Michael Stevens; and great grandchildren, Robert, Jewel, Landon, Haley, Gabe, Jett, and Grace.

He is preceded in death by his first wife, Delores Hebert Comeaux; second wife, Linda C. Comeaux; grandchildren, Chad Eric Stevens and Jennifer Stevens; great granddaughter, Loreli Stevens; and parents, Lovelace Comeaux, Sr. and Noelle Judice Comeaux.

Pallbearers were Austin Fuselier, Chris Richardson, Kevin Comeaux, Jr., Robert Waits, Steve Grisaffe, and Mark Stevens. The family would like to extend special thanks to the staff of Bridgeway Hospice for their caring and support.

To view the on-line obituary, video tribute, and sign the guest register, please visit www.evangelinefuneralhome.com. Evangeline Funeral Home of New Iberia was in charge of arrangements.



John Arthur Graves

John Arthur Graves passed away peacefully on Saturday, January 16 at Our Lady of the Lake Hospital. At 79, John worked at a pace of many half his age, ever chasing one more win. Strong, visionary, and always teaching, "JAG's" legacy will loom as large as his once-commanding presence.

Born in Baton Rouge in 1941, John Graves moved to Opelousas graduating from AIC, now Opelousas Catholic, where he was involved with Student Government, played football and basketball, and ran track until suffering a back injury that would continually haunt him. But it was the death of his father while he was in high school that would deepen his resolve and shape John's life. John Graves rose from humble beginnings - working full-time while in school, including as a rodman surveying the Bonnet Carre Spillway. John graduated from LSU with a BS in Civil Engineering and joined Edward E. Evans & Associates in May 1965, the same month his wife Cynthia gave birth to their first of five children. Believing in a well-rounded education, John continued his post-graduate studies in business at LSU, then worked with the College of Engineering to create more well-rounded students. John had great admiration for Mr. Evans, and it seems the feeling was mutual as Mr. Evans placed John in charge of the firms' operations at the age of 29 and in 1986 sold to John what would become Evans-Graves Engineers.

Today it is virtually impossible to travel through south Louisiana without seeing John Graves' impact - from the Maravich Assembly Center and neighborhoods across Baton Rouge including Country Club of Louisiana to the John J Audubon Bridge, from Cortana Mall to the Ritz-Carlton in New Orleans, as his influence on the landscape endures.

John Graves' legacy continues in the engineering community, as there is a "tree" of former Evans-Graves Engineers populating many of south Louisiana's top firms. Of all of his projects, John's greatest achievement was the levee rebuild following Hurricane Katrina, the largest Civil Works Program in US history, his scope that was completed on time and under budget under John's direction. He published The Fortress Of New Orleans documenting the project.

John supported the causes for which he felt strongly - most recently serving on the boards of the LSU Civil and Environmental Engineering Department, including eight years as Chair, Pennington Biomedical Research Center, B1Bank, and St. Joseph's Academy as well as a parishioner at Our Lady of Mercy. Not always serious, John relished his time in the Baton Rouge Roundtable where he served as President, riding with the Krewe of Bacchus and comingling at the City Club of Baton Rouge. John loved LSU and was proud to have been inducted into both the LSU Civil and Environmental Engineering (2009) and LSU College of Engineering (2016) Halls of Distinction. John Graves' legacy lives not only in the Louisiana landscape but also in his family as his children have gone on to enjoy success in their own rights in business, medicine, and politics. While JAG was always more challenging to his children, he was extremely proud of each always introducing them to clients and friends. JAG loved family gatherings - employing Christmas, Mardi Gras, LSU football, and any other excuse for food - particularly desserts - wine, and fun.

John Graves is survived by his wife of 56 years, Cynthia Sliman Graves, five children and nine grandchildren: Angelle Graves Hamilton and her husband Art, of Atlanta, Dr. Kurt Graves and his wife Alysia, Ashlyn Graves White and her husband Randy of New Orleans, Congressman Garret Graves and his wife Carissa, and Katelin Graves Walker and her husband Lee of Memphis, and his sister Patricia Graves Gray and her



In Memoriam...

John Arthur Graves continued

husband Chuck of Houston. Grandchildren include Madelyn Graves, Conner Graves, Reily Hamilton, Ralston Graves, Graves Hamilton, Kadence Walker, Calla Graves, Lena Mathile Walker, and Kulshan Graves. He was preceded in death by his mother Lena Courville Graves and his father William Roscoe Graves who graciously prepare for his arrival. To our Evans-Graves family, we are ever-grateful for your commitment, love, and support in helping establish JAG's great legacy. We are also appreciative of the doctors and nurses at Our Lady of the Lake Hospital who provided excellent care to John in his final days.

In lieu of flowers, the family is requesting donations to Our Lady of Mercy Church, 445 Marquette Avenue, Baton Rouge, LA 70806, Pennington Biomedical Research Foundation, 6400 Perkins Road, Baton Rouge, LA 70808, or LSU Foundation - Department of Civil and Environmental Engineering. There was a Celebration of Life on Thursday, January 21 at Our Lady of Mercy Catholic Church at 10:30 am, preceded by visitation at 9 am. The service was also live streamed on Our Lady of Mercy's Facebook page.



James Stephen Melton

James Stephen Melton died peacefully at The Carpenter House on Wednesday, January 13, 2021, after a relatively short but intense battle with lung cancer.

Steve, a native of Monroe, resident of St. Francisville, and former resident of Baton Rouge, was born August 30, 1949, and was 71 years old. A graduate of both U-High and LSU, he was a land surveyor for the Coastal Protection and

Restoration Authority for the state of Louisiana. He had planned to retire in November 2021 so he could enjoy the fishing he loved at Lake Rosemound and continue to cook wonderful gumbos and etouffees for his family, but God had other plans. He and his wife Darrylin nevertheless were grateful they were able to spend the last sixteen months of his life in such a beautiful and peaceful setting.

Steve was preceded in death by his parents Lee and Hortense Melton. He is survived by his wife of 47 years, Darrylin, and his three beautiful daughters and their spouses: Katie Macaluso (Chris), Ginna Aker (Allen) and Meredith Melton (Apu Borcar). He is also survived by and loved being Grumps to his five fabulous grandchildren: Hank and Maggie Macaluso and Austin, Grace and Elise Aker. Steve is survived by his sister Marilyn Merkle of Shreveport, his brother Don Melton of Houston, and his brother and sister-in-law Joe and Jane Melton of Rochester, Minnesota, as well as numerous cousins, nieces and nephews. There was a private family celebration of his life Saturday, January 16. In lieu of flowers, donations in his name to University United Methodist Church, 3350 Dalrymple Dr., Baton Rouge, LA 70802 would be greatly appreciated.



Roger Cade Wilkinson

Shreveport - Mr. Roger Cade Wilkinson, beloved husband and father, 94, passed away peacefully on Wednesday, January 20, 2021.

Mr. Wilkinson was preceded in death by his beloved wife of 64 years, Molly; his parents John Pugh and Anna Corinne Wilkinson; his brothers John Dallas and William Douglass Wilkinson and his sister Frances Mai Fall. He is survived by his daughter Amy Pollard and husband Wiley, son Steve Wilkinson and wife Marcia; and

daughter Patti Gossein and husband Alain. He is further survived by 6 grandchildren and 8 great grandchildren along with numerous nieces and nephews.

Mr. Wilkinson was born in Shreveport, Louisiana where he resided his entire life. He attended C E Byrd and Centenary College and was a veteran of WWII where he served in the US Navy. His commitment to his country continued with time spent in the Naval and Army Reserves.

Roger worked as a land surveyor for over 70 years and was owner of Wilkinson & Associates. He was the last surviving original founder of the Louisiana Society of Professional Surveyors.

Roger was an active member of his community serving with the Shriners, Kiwanis, and volunteering time with the Boy Scouts. He was an avid sportsman and served in various board capacities with the local YMCA. As a lifelong Episcopalian, his most rewarding service was spent as a layman and a Eucharistic Minister for over 50 years with St. James Episcopal Church.

By his side during these years was his beloved wife, Molly. They enjoyed world traveling, painting, and spending time together in their garden toasting the end of the day.

Visitation was held at 2:00 PM Saturday, January 23 with services following at 3:00 PM at St. James Episcopal Church located at 2050 Bert Kouns Industrial Loop, Shreveport, La. Graveside services followed at Forest Park Cemetery, St. Vincent Avenue. The Reverend W. James Yazell officiated.

The family would like to thank the wonderful staff at The Glen for their care and support, and asked that in lieu of flowers, donations be made to a charity of choice.

WANT TO GET INVOLVED? YOU CAN HELP

BY VOLUNTEERING TO WORK WITH ONE OF THE FOLLOWING:

- Legislative Committee
- Education Committee
- Newsletter Committee
- Seminar & Technical Education Committee
- Scholarship Committee
- Promotion of the Profession Committee
- and others.

If you would like more information, please call the LSPS office at 225/925-5800 or email lsps@lsps.net.

Thanks!



SURVEYING · ENGINEERING · ENVIRONMENTAL SERVICES · GIS



www.mphinc.com
OFFICE LOCATIONS

HOUMA, LA
985-879-2731

HOUSTON, TX
713-219-1470

SAN ANTONIO, TX
210-366-8799

MIDLAND, TX
432-276-3300

WE APPRECIATE OUR SUSTAINING MEMBER FIRMS

ALEXANDER & SANDERS INSURANCE

4610 Bluebonnet Blvd, Ste. A.
Baton Rouge, LA 70809
(225) 295-2995

BRIS ENGINEERING, LLC

8585 Archives Ave.
Baton Rouge, LA 70809
225-932-6000

JV BURKES & ASSOCIATES INC.

1805 Shortcut Hwy.
Slidell, LA 70458
(985) 649-0075

CHUSTZ SURVEYING INC.

211 Richy St.
New Roads, LA 70760
(225) 638-5949

COYLE ENGINEERING COMPANY, INC.

PO Box 6177
Bossier City, LA 71171
(318) 746-8987

DADING MARQUES & ASSOCIATES LLC

PO Box 790
Metairie, LA 70004
(504) 834-0200

DENMON ENGINEERING CO., INC.

PO Box 8460
Monroe, LA 71211
(318) 388-1422

DUFRENE SURVEYING & ENGINEERING

PO Box 753
Harvey, LA 70059
(504) 368-6390

EGR SERVICES, LLC

1330 Park Dr, Ste. 300
Mandeville, LA 70471
(985) 626-7044

G360, LLC

9502 Main Street
Zachary, LA 70791
(225) 570-8268

GEOSHACK

2307 Springlake Rd., 514
Dallas, TX 75234
(318) 547-3973

GILBERT KELLY & COUTURIE, INC.

2121 N. Causeway Blvd, Ste. 121
Metairie, LA 70001
(504) 836-2121

GULF COAST AERIAL MAPPING

4242 Harding Blvd.
Baton Rouge, LA 70807
(225) 355-9722

HAAG & TRAMMELL INC.

200 Ridgelake Dr.
Metairie, LA 70001
(504) 834-8392

MORRIS P. HEBERT, INC.

PO Box 3106
Houma, LA 70361
(985) 879-2731

SE HUEY COMPANY

1111 No. 19th St.
Monroe, LA 71201
(318) 325-1791

HYDRO CONSULTANTS INC.

10275 Siegen Lane
Baton Rouge, LA 70810
(225) 766-4422

LANDSOURCE INC.

6730 Exchequer Dr.
Baton Rouge, LA 70809
(225) 752-0995

LAZENBY & ASSOCIATES INC.

2000 North 7th St.
West Monroe, LA 71291
(318) 387-2710

MADER ENGINEERING INC.

1245 South College Road, Bldg. 1
Lafayette, LA 70503
(337) 989-8047

M.P. MAYEUX SURVEYING & BOUNDARY CONSULTING, LLC

PO Box 61501
Lafayette, LA 70596
(337) 266-9500

MEYER, MEYER, LACROIX & HIXSON, INC.

PO Box 5444
Alexandria, LA 71307
(318) 448-0888

MORRISON SURVEYING, INC.

480 N. Cities Services Hwy.
Sulphur, LA 70663
(337) 625-1050

NAVIGATION ELECTRONICS INC.

200 Toledo Dr.
Lafayette, LA 70506
(337) 237-1413

NTB ASSOCIATES, INC.

8643 Main St.
Zachary, LA 70791
(225) 751-4002

SJB GROUP LLC

PO Box 1751
Baton Rouge, LA 70821
(225) 769-3400

T. BAKER SMITH LLC

PO Box 2266
Houma, LA 70361-2266
(985) 868-1050

CL JACK STELLY & ASSOCIATES, INC.

PO Box 53353
Lafayette, LA 70505
(337) 237-0746

T2 UTILITY ENGINEERS, INC.

10212 Patriot Dr.
Baton Rouge, LA 70816
(225) 752-8322





We've got your back,
every step of the way

Survey Solutions to Fit Every Need



Thanks LSPS for a GREAT 2020!



Microdrones LiDAR System:

- Now only \$35,000
- Go from field to finish to surface on 30 acres in one day!

Contact us for a demo flight!



Free Trimble TSC7
with the Purchase of
a new Trimble R12

Over \$9,000 off
the LIST PRICE!

Only \$23,995!

Now available to rent!

Stephen Herpin
S. Louisiana Survey Sales
Stephen_Herpin@neigps.com
337-706-2474



Chris Cothron
N. Louisiana Survey Sales
Chris_Cothon@neigps.com
337-349-9605



Ross Kenney
UAS Sales & Support
Ross_Kenney@neigps.com
337-344-0430

