



Established 1996

# SurView

## The Newsletter by Surveyors for Surveyors

### Annual AGM

At the Annual AGM held at the University of the West Indies in October, 2018 we saw a landmark event where our membership was able to achieve a quorate meeting at its first attempt.

**The Membership welcomed the new President, Dr. Sunil Laloo as both a Land surveyor and a Valuation surveyor to lead the organization for the next year.**

The meeting also saw discussions and amendments to the ISTT's proposed Bye-Laws and Code of Ethics and this is scheduled for adoption on 1st January 2019.

**Merry Christmas - 2018  
A bright and prosperous  
2019 to all.**



### In this Issue

Annual AGM	1
A Note from the President	1
Dedication to a lost Member	1
Editorial	2
ISTT News	2
Cadastral Surveying and Earthquake Events in T&T	3
Property Tax A	
Kneejerk Response	5
Announcements	7

### A Note from the President—Dr. Sunil Laloo

Colleagues, it is with great pleasure that I introduce to you our final edition of SurView for 2018. This year has been a learning experience for us all and I hope that 2019 will challenge us further so that we continue to grow and change. At our last AGM, we passed new bylaws for the ISTT that included a code of ethics and disciplinary procedure. We expect that these would evolve over time to adapt to the changing needs of the profession and our wider roles and responsibilities to society. In the coming year, the ISTT will be focusing on CPD events; most notably, the Caribbean Land Conference in October. We also aim to have a greater involvement in issues of national concern such as: the roll out of the Systematic Land Adjudication and Registration Programme; the roll out of Property Taxation; issues in Compulsory Acquisition and Land Development just to name a few. We also intend to strengthen our relationship with partner organisations such as the Commonwealth Association of Surveying and Land Economy (CASLE); the International Federation of Surveyors (FIG); the Royal Institution of Chartered Surveyors (RICS); the Joint Consultative Council for the Construction Industry (JCC) and the University of the West Indies (UWI). We hope for the coming year to see a greater level of participation from you, the membership, toward achieving these goals. Wishing you and your loved ones a safe and enjoyable Christmas Season and opportunities for growth and professional development in the New Year!



### Dedication to a lost Member

***It was during the period of finalization of this newsletter that we learnt of the tragic passing of one of our founding members, Mr. Mervyn Thompson. As a past President and Secretary of the ISTT, Mervyn played a critical role in leading the ISTT and being a mentor to younger members in the ISTT. His Property Tax article was written by Mervyn and was being presented at the time of his passing. We will all miss charismatic presence at our meetings and events. Bon Voyage Mervyn!***

## Editorial

A word of thanks to our colleague Mr. Mervyn Thompson, for contributing his article for this edition of SurView. This article is in keeping with the theme in the Press Release of the ISTT on the Property Tax issued earlier this year.

The profession is being exposed to numerous changes in our operating environment with the developments being undertaken in the Automation of the Construction Permitting System at the Ministry of Planning; the Land Title Regularization project being undertaken in Tobago and the upgrade of the Land Registry Records planned for early 2019.

**Door Prize Winner**

Congratulations to the Annual Dinner Event Staff who organized another successful annual dinner of the ISTT held at Passage to Asia on 24th November, 2018. The karaoke was a memorable event together with the door prizes. More photos on our Facebook page. Special thanks to our "DJ for life" —**Colvin Blaize**.

Enjoy reading friends and colleagues, we look forward to your comments and receiving submission of articles for publication consideration.

Kamal Sant

Editor



## ISTT News

Congratulations are extended to the following students for 2018 at the University of the West Indies, Geomatics and Land Management Department who received annual prizes donated by the ISTT to further the development of Surveyors:

- Level 1 Student producing the best project in Geomatics - \$1000 awarded to Gerald Murray
- Level 2 Student producing the best project in Geomatics - \$1500 awarded to Camay Cuffie
- Graduating Student producing the best project in Geomatics - \$2500 awarded to Shairba Charles
- Level 1 Student producing the best project in Land Valuation - \$1000 awarded to Machel Alexander
- Level 2 Student producing the best project in Land Valuation - \$1500 awarded to Elvin Forta
- Graduating Student producing the best project in Land Valuation - \$2500 awarded to Veroon Ramroop

Congratulations to all Student winners of the respective ISTT Prize. Prizes were presented by the ISTT President.

*Members are reminded that from 2018 onwards, in order to qualify for the prize, a student must be a Student Member of the ISTT.*

**A new ISTT website has been launched don't forget to check it out at <http://www.instituteofsurveyors.com>**  
Check out the all new **find a surveyor** tab.

### **CPD Events June– Dec 2018:**

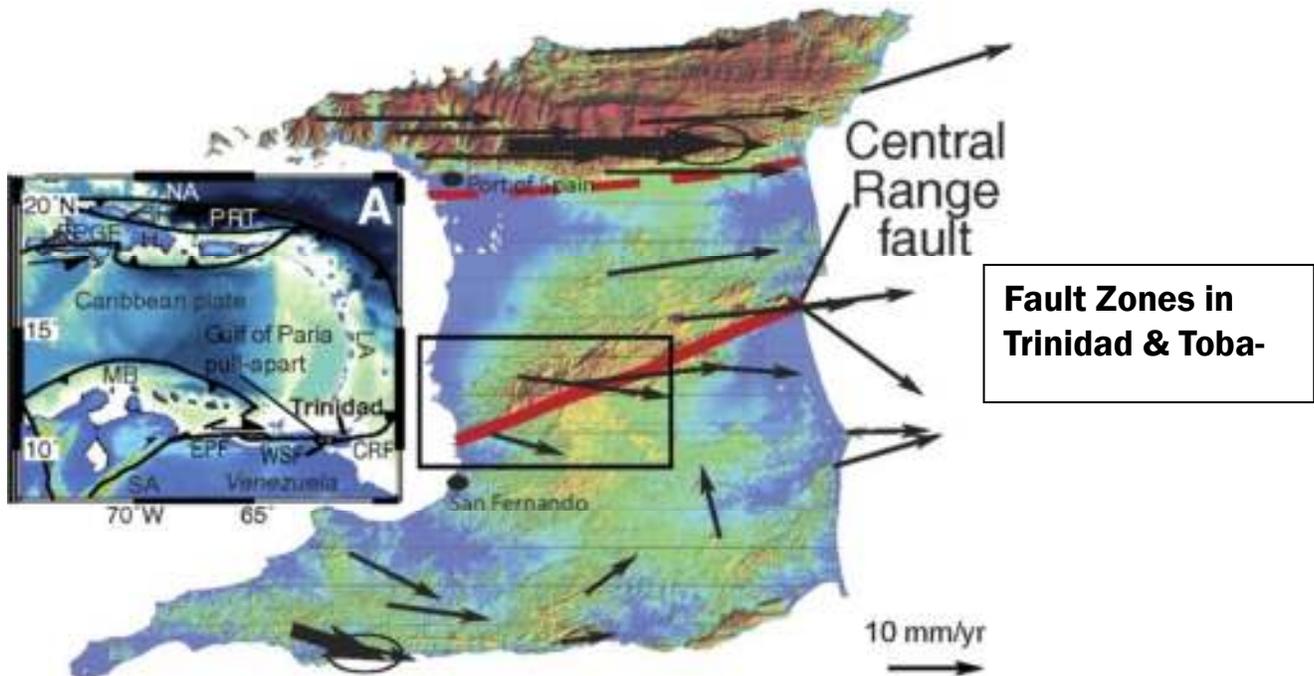
December 5th 2018 "**Land Acquisitions**" covering Ethics in land acquisitions; the Land Acquisition Process; Claims for compensations and negotiations; Mega projects and Experiences and Mortgage Financing (8 CPD Hrs.)

June 7th 2018 "**Accounting for Surveyors**" covering Practical accounting experiences; Best practices for Tax Allowances; and Techniques to reduce accounting costs (8 CPD Hrs.)

## Cadastral Surveying and Earthquake Events in T&T by Kamal J. Sant (TTLS)

### Introduction:

Most Trinbagonians are becoming familiar with the term “earthquake” given the country’s frequent and recent up-surge in seismic activity because of our location at the junction of two dynamic tectonic plates. Earthquakes are caused by the deep movement of plates (huge slabs of rock) making up the surface of the Earth. The region where two or more plates meet is called a plate boundary. The plates are constantly moving but this plate movement is neither smooth nor continuous, rather the plates often lock together at plate boundaries causing a build-up of energy. When the plates eventually move out of this locked position the energy that is released may be felt as an earthquake. The Trinidad and Tobago based Seismic Research Centre of the University of the West Indies each reports over 1,200 earthquakes are recorded in the Eastern Caribbean annually. Not all of these events are felt, but they serve as a reminder that the region is seismically active.



With modern measurement technology, it is now relatively easy to establish the magnitude and direction of movements, even in a global sense. However, you may not know that your property boundaries may also distort as a result of earthquakes. What happens to property rights when there is a considerable lateral shift of a large tract of land in an earthquake?

### The Landowner’s View:

If the boundaries remain as recorded with the land and surveys registries, there will be enormous disruption where fences, roads, buildings etc. will not be where they should be.

If the boundaries move with the land (the sensible, but perhaps not a legal solution) then there will be a horrendous task in re-surveying revising the boundaries. Then there will be really awkward cases where a property or a legal access has only been partly displaced by the shift .

Without legislation in place to cover the situation, the real fear of legal minefields that may lie ahead becomes a reality. While the “small number” of properties bisected by the fault trace might need more careful consideration by surveyors, the majority of property boundaries are not materially affected. Landowners rebuilding fences or buildings

are close to the boundary will often need to get a surveyor to confirm the position of the boundary, but this is usually a good idea anyway.



**Infrastructure damage from September 2018 7.4 Earthquake event at Erin, Trinidad showing significant land displacement**



**A Surveyor's View:**

In common law land ownership, and its property lines, generally include all the earth below, to the core of the Earth, and the sky above to infinity. A fence or wall as the boundary before an earthquake, would reasonable be assumed as still being the boundary afterwards. Therefore, wholesale re-survey of boundaries should not be required. The positions of boundaries are based on physical evidence in the ground – mainly survey marks, including boundary pegs. Surveyors re-establishing boundaries also consider other evidence, where relevant, such as the relationship of fences and buildings to the boundary. The best solutions for re-establishing boundaries are based on evidence, common law and common sense with little need for intervention by the courts. When measuring old survey lines in a local area, we don't anticipate finding significant differences when comparing the new measurements with the old ones. The exception to this being in areas where the ground is subject to liquefaction, or other instability.

**The Local Situation:**

Surveyors have been undertaking cadastral (boundary) surveys in Trinidad and Tobago for over 150 years. These surveys and the cadastral plans showing them, form an important part of the T&T Cadastral Mapping Index System (CMIS) – the record system which records cadastral surveys and is administered by the Surveys and Mapping Division of the Ministry of Agriculture Lands and Fisheries. This system is a digital record of the location of all registered cadastral surveys depicting our surveyed rights in land and property in Trinidad and Tobago.

It goes without saying that land owners need to know what they own. This job is undertaken by Licensed Cadastral Surveyors or Trinidad and Tobago Land Surveyors. The State apart from licensing of cadastral surveyors, confirms compliance with survey rules and adequate land definition, by examining and registering all new surveys lodged before they are integrated into the CMIS. This role is executed by the Director of Surveys.

**Day to Day -**

Our on-ground boundaries is a network of control marks such as trig stations and boundary marks part of our geodetic control. It is now generally accepted that some parts of the country (central fault) are moving several millimetres (12-14) a year relative to others. This may not seem significant, but over 50 or 100 years this continuous earth movement can be measured in metres. However, because individual land parcels are relatively small, movement within a property is also generally very small and can largely be ignored.

---

Our survey system allows for this movement because boundaries are still defined by boundary pegs or irons as the primary boundary determinant (original marks).

Whilst the position of natural features and boundary marks is at the top of the hierarchy of evidence which defines boundaries in T&T, there is a large amount of information which can contribute to boundary location, particularly when boundary marks no longer exist. This can include the position of occupation (buildings, fences) on or near the boundary, survey information and measurements carefully gathered by fieldwork, the mathematics or evidence found in prior surveys and the title record, an understanding of survey errors, technology etc. The role of TTLS's can therefore range from the archaeologist to the historian, and from the mathematician to the field surveyor. Boundary determination requires specialist knowledge, experience and skill. While the Courts are the ultimate arbiter. However, it is testament to the care with which TTLS's undertake this work that very few cadastral definitions end up in the Courts.

### **The One off Event - Earthquake**

When the land moves in a more severe fashion (e.g. by earthquake), the effect on property boundaries is more marked. Where a ruptured fault line runs through a property, one part of the property is unhinged from the remainder and some form of boundary adjustment is necessary. In other cases, the property is less visibly altered but may be distorted in height or dimension.

Surveyors have for many years never specifically addressed the effects of significant earthquakes as there have not been significant earth movement events since the destruction of the former Capital in St Joseph in the 1800's. The fact that some land boundary dimensions may have changed as a result of the earthquakes have been largely ignored.

Where a boundary iron moves from the ground as a result of a localised landslip, it is reasonable to assume that the boundary can be relocated in its former position. This is not difficult to achieve the replacement of marks as the boundary is related to neighbouring parcels and can be replaced without much difficulty. This is the case for landslides which affect discrete areas, but the same cannot be said for earthquakes, which may affect large expanses of land and even countries.

It is therefore not surprising that in T&T, immediately following the recent September 2018 earthquake, some surveyors made the analogy that the resultant serious liquefaction was akin to a landslip – shallow seated movement. This liquefaction has resulted in many areas of significant distortion and lateral spreading even within small residential and agricultural properties as reported recently in both Los Iros and Felicity.

### **Some Approaches for Re-establishment of Boundaries after A One off Event:**

There is no mandatory requirement to resurvey land boundaries after an earthquake event. A resurvey may not occur for many decades when evidence of localised movement has long since disappeared e.g. breaks in fences, earth disturbance etc. Landowners can choose to redefine their land at any time.

After significant earthquakes, it would not be uncommon for changes (distortion, enlargement, shrinkage) to be present particularly if the property is disrupted by an active fault line. This means that property may have altered boundary dimension upon resurvey after an earthquake, but this will represent the ground truth.

One approach is to deal with such movement to land in a pragmatic way, by evaluated all of the evidence. This may involve talking with neighbours, and looking at the effects on not only the subject land but land further afield. Survey costs when defining land which has been subject to movement may be higher. But this is the price of retaining a world class title system and security of property ownership.

The Surveying Authority may declare a "Green Zone" where features are largely unaffected and normal survey Regulations and Rules continue to be applied. Except in the case of a landslip, boundaries move with the survey monuments and the land. This means that boundary fences and buildings on or near boundaries, will continue to hold the same relationship to the boundary after land movement as they did before it .

In areas affected by liquefaction, or other instability, early revision of control points are required for disaster recovery. If Cadastral Survey data are not available, it will take a long time restore the land boundary to recover the infrastructure and the communities. There is a need for Special Regulations and Rules to govern the conduct of re-definition surveys. Such affected areas (e.g. in Japan) will require the surveyor to re-position boundaries in mathematical pre-earthquake positions derived from cadastral records and geometric ties to controls irrespective of where those boundary positions were relative to boundary marks and fences/buildings etc. This would, in most cases, have a dramatic change to existing survey practice and have significant negative effects on property

---

owners who may have found part of their dwelling or their fences in the neighbouring property. The adoption of this “measurement” type approach to the replacement of boundaries will be heavily dependent upon the cadastral records available. Where cadastral records are based on a numerical boundary system or surveys often tied to national control of a relatively high quality, this approach can be feasible. However, in Trinidad and Tobago, this is not the case and our general surveys have been tied to controls since 2005. Therefore, systematic adjudication may be required with the assistance of the Courts.

### **Conclusions:**

Trinidad and Tobago is located in an area prone to earthquake events. The prediction for the local Seismic Research Centre of the University of the West Indies is to expect a “Big One”. As a country it is a pragmatic approach to be prepared for any eventually. As such, the Land Surveying stakeholders have to arrive at a consensus on the way forward and not be a respondent post event.

There is no need to resurvey boundaries after all events. Only zones specifically identified as being affected by liquefaction, or other instability should be re-surveyed as a “block.” Special Regulations and Rules to amend the Land Surveyor’s Act of 1996 may be required to facilitate the re-measurement exercise post event in specified zones. This is underpinned and supported by a invigorated State driven approach to the provision of geodetic quality controls and enforcement of Land Survey Rules (2012) - Part II Section 3(1)b and 3(2) – requiring the survey tie of cadastral surveys to national controls.

---

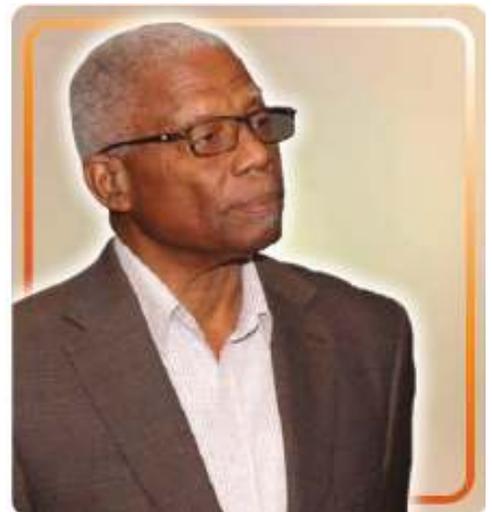
## **PROPERTY TAX A KNEEJERK RESPONSE (article by Mr. Mervyn Thompson MRICS)**

So much is said about the tax and so little about the system that one is left to believe that the system does not matter. And yet it is the system that facilitates and will eventually justify the tax!!!!

The tax is only possible if a system of recording land occupancy is in place. When the doomsday book was compiled in the 11TH century it was to record land ownership and sought to account for every parcel of land in every holding of every ‘hundred’ (a unit of land ownership in the agrarian society of the day) in every Shire (ward) in every County. The payment exacted was to pay for the compilation and maintenance of the record. It is this system that persevered to the nineteen twenties outside of the City and Boroughs in T&T through the maintenance of the Wardens Rolls.

Urbanisation following emancipation and the removal of the responsibility of communal shelter as a responsibility of the large landed owner, and the growth of the individual occupation of shelter, placed the responsibility of environmental maintenance (management of waste and control of health issues) on the governmental bodies. In the city and boroughs of the nineteenth century, ownership and occupation of lands in an urban context was largely synonymous, they were recorded as such and charged accordingly. On the large landed estates that existed outside these areas, the burden was left with the owners of the estates, and they were responsible for the collection of building taxes for transmission to the treasury for inclusion in the consolidated fund administered by the Central Government.

Following the war (WWII) the enormity of the task faced by the estate owners, particularly those adjacent to urban centres (Aranguez; Ne Plus Ultra and Monte Christy to name the big ones), persuaded the central government of the day to undertake the collection of the building taxes from the respective occupiers of the building, the land element of the tax remaining with the land owner, who were expected to submit a sub-return showing all the buildings on the land and details of their occupiers. Keep in mind that these were largely year to year tenants of the land on which the building stood and therefore did not qualify as ‘owners’.



---

land and details of their occupiers. Keep in mind that these were largely year to year tenants of the land on which the building stood and therefore did not qualify as 'owners'.

All this to demonstrate the fact that the tax is at its core an occupiers' tax whether that occupier is owner, leaseholder, tenant or squatter! So long as one occupies land (as defined) and adds to the need for environmental maintenance, one is or ought to be responsible for payment of the tax, whether directly or indirectly, and this is buttressed in at least two sections of the Act. One which clearly states that payment of the tax does not devolve proprietary rights; and the provision for landlords to recover tax payments from tenant-occupiers and vice-versa.

In a population of 60 squatters in the St. Marys Village of South Oropouche I have encountered university graduates; auto mechanic operators and one owner of a construction firm, and an oil-well driller. Having worked on the slum clearance efforts in east Port-of-Spain this came as no surprise to me. It is the blanket removal of squatters from the system, arguably the largest contributors to environmental degradation, that appears to be the 'bad idea'. For one thing it is likely to interfere with the completeness of the record of occupation of lands, a record that has much deeper implications for land use and occupation and indeed ownership. The objection to applying the tax to squatters is to me a continued aversion to means testing. It perpetuates the practice of subsidising 'bricks and mortar' rather than 'people'. It is for me a far more responsible approach to tax the building wherever they are and deal with the owner/occupier under the relief provisions of the Act.

The importance of the record is not to be underestimated either. I am sure that you are aware of matters before the courts of apparent land fraud based on distortion of records in the COSL office. It did not begin with the hiatus of 2010-2017. The Sellier Street St. Joseph matter at the close of the last century was the result of the COSL terminating one lease and re-granting the lands to what was then a former employee, based on inefficient searching of the Inland Revenue records which would have revealed that the lease rents were indeed paid. The matter was settled when the claimant (who lived in the US) reached agreement with the grantee which led to the collapse of the case against the Commissioner. I shudder to think of the shenanigans that may have taken place during the hiatus when there was no Commissioner in place for substantial periods.

It is again my experience that there was confusion among the population on the payment of lease rental after the tax was put in abeyance. This was further complicated by inland revenue officers who seem not to recognise the difference between the L&B payments and lease rent payments, and were turning back both. I found myself having to confront one such officer and almost having to resort to reporting the matter to the DRO before he would accept the payment. Again I shudder to think of the fate of any or all of the leaseholders who, for the non-payment of a peppercorn rent are or may be exposed to losing their property.

The non-public status of the Certificate of Title records left the Inland Revenue rolls as the most up-to-date record of land ownership in the country. I am not aware if the issuance of a 2009 clearance by the Inland Revenue being tied to the change of ownership records which would have become redundant with the repeal of the L&B Taxes Act and the suspension of the Property Tax Act.

It is unfortunate that the term hereditament was removed because neither 'land' nor 'property' adequately describes a 'taxable unit' in my view. The hereditament as a description of the taxable unit would have covered leaseholds as in the case of multi-storey apartments and removed the concerns expressed. It also would retain the application to separate land parcel used for a common purpose as a single tax unit (the bakery case in the UK). Still to be resolved however is the 3-year tenancy not evidenced by deed.

The fifty percentage trigger is perhaps questionable, for myself I would have preferred 60% but when I visited Belfast Revenue Offices during their preparation for the third rate review several years ago, they were talking of an eighty-five percentage cover. The challenge would be to ensure that the 50% have a national spread and not a concentration say in the E-W corridor. So perhaps what I did not hear was a minimum percentage for each Region.

There is no such thing as an 'old rate'. That would need to be legislated to energise a revival. It is my view that the complications of so doing, together with the implications of inequity, may have been the major reason why it was not implemented in 2013.

The use of rental values as a basis for the tax reduces the importance of 'land' (with its boundary complications) and places the emphasis on the unit of occupation in terms of the building in much the same way as multi-storey flatted accommodation. The hypothetical tenant is less concerned about land boundaries. The conversation on buildings not in economic use is also of some concern. For almost 100 years, buildings were taxed on the basis of their rental value. If there is no rental market for a building that is not in productive use, then the rental value is nothing the RV is zero and therefore the tax is zero. So even if Temples, Kutiya and other similar buildings (Ogun comes to mind) fell outside the four corners of the provisions of exemptions, and believe they do not, their lax liability will be zero. Incidentally one of the more amusing aspects of the conversation is that while there seem to be a concern as to the determination of rental values for the property tax where there is some evidence, for the years prior to 2009 L&B taxes were predicated on the rental value of the building only for which there is no direct evidence.

---

## Announcements:

Congratulations to the following ISTT members who were awarded Licenses to practice Cadastral Surveying by the Land Survey Board of Trinidad and Tobago in November 2018:

- Ms. Rachel Jeremy
- Mr. Dario Mahadeo

The ISTT has been pivotal in representing the interests of the surveying professionals in Trinidad and Tobago by participation in:

- Automation of the Construction Permitting System - Kamal J. Sant
- UWI Industry Liaison Committee—Mr. Nicholas Westmaas
- JCC—meetings to make representations for payment of certified contracts from the State to Members - Michael Samms

The ISTT continues to attract significant interest from both students and practitioners for registration as ISTT members. Members are asked to continue to promote the ISTT's goals and enhance its positive visibility.

The Board of management actively seeks volunteers to participate in ISTT events and membership interviews.

## UPCOMING EVENTS

- ISTT CPD Event — Supervision of Graduate Land Surveyors — January 2019
- ISTT Land Conference—October 2019 ..... Look out for details ....

The ISTT has long sleeved dress shirts monogrammed with the ISTT logo available for sale at the low cost of \$175.00 (by order only no minimum quantities).

Contact Ricardo Sullivan at the Module to order yours today.

**WEAR PROUDLY!**

## Humour of the day



It helps  
when you  
can laugh at  
yourself!

