



SASTA NEWS

Newsletter of the SA Sugar Technologists' Association

April 2007

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Field Trip to KZN Midlands

On 2nd November 2006, a group of 52 people attended the SASTA Field Day. The group met at the Illovo Noodsberg Mill gate to start the convoy to the SASRI research station at Bruyn's Hill. In the pouring rain, a very slow cavalcade procession behind the low-slung car of Geoff Maher, the local Extension officer, made its way through the Midlands mist to the appointed mud patch to park the cars.

Sharing umbrellas, the group split into two for guided walks (and mud-skating) into the rows of sugarcane trials. Roy Parfitt, Doug Thomas and Allan Buss of SASRI informed us about the selection procedures that are followed in the long process (\pm 15 years) to developing the most suitable cane varieties for the area.

Variety selection in the Midlands takes place on both of SASRI's research farms (Bruyn's Hill and Glenside). The group was shown the first and last stages of the 5-stage selection programme. A stop was also made at the late propagation plots, where the latest promising varieties were viewed.

The rain eased off as we left Bruyn's Hill, which was a great relief to those who wanted to see the chopper harvesting in action. Fortunately the weather turned sunny and it became dry enough for the harvesting demonstration to take place. Joe Phelan and Craig Markham of Claas Cane Technology and NMF, together with Peter Schröder laid on a demonstration of green cane harvesting on Bruno Muhl's farm. While Bruno's trash is not normally baled, but left on the fields to improve soil proper-

ties and nutrition, a demonstration of trash baling was provided. Trash can be used for a number of applications, for example co-generation at Big Bend, mulch in orchards at Felixton or animal feed. The impressive operation held us spellbound. The machine's instantaneous capacity is up to 80 t/h but averaged over a season one should get up to 40 000t harvested or around 200 t/day. Row spacing is very important and one should ensure that wheeled traffic

does not run over the stools as this causes significant yield losses.

Any SASTA member who wishes to find out more or to find out prices for mechanical harvesting and baling, is welcome to telephone Joe Phelan on 082-5711910.

A lunch braai at the Noodsberg Country Club followed which gave members an opportunity to network, socialize and relax.

Article written by: Danile Macdonald, Peter Lyne and Roy Parfitt



SASTA COUNCIL

The SASTA President and Vice-President are chosen each year by the outgoing Council. The balance of SASTA Council is chosen each year by the FULL and HONORARY members of SASTA. Nominations are called for, and voting is conducted annually so that the new Council takes office each year after the AGM. Your 2006/2007 Council members are featured below.

President: Paul Schorn

Paul works for Tongaat-Hulett Sugar Limited as the Technology Group leader within the Technology and Engineering Group (TEG). The Technology Group provides processing / operational support to the Tongaat-Hulett mills, both within South Africa and externally (Zimbabwe and Mozambique). Process designs and factory expansions are also undertaken by the Tech Group. Prior to joining TEG, Paul worked at Malelane, Darnall and Simunye. He has been very involved in the ISSCT 2007 Congress sponsorship and exhibition organization and is the South African Councillor on ISSCT. He has presented a number of SASTA and SIT papers. Hobbies include reading, music - generally of the retro-rock genre - and social squash.

Vice-President: Deborah Sweby

Deborah is a Senior Research Officer in the Crop Biology Resource Centre at SASRI. A Physiologist/ Molecular Biologist by training her job involves conducting sugarcane research at the genetic level. Prior to joining SASRI in 1993 she was studying at UKZN. She has served on SASTA Council since 2004 as Agriculture Editor of the SASTA Proceedings. She is committed to ensuring that the Proceedings contain high quality papers that contribute to Sugar Industry knowledge. One of her goals while on Council is to

obtain a SAPSE rating for the SASTA Proceedings. She currently also serves on the ISSCT 2007 Congress Organising Committee. Her involvement here is to assist with compiling the Proceedings and Programme. Outside of working hours she is a competitive Race Walker (yes, those people who walk funny!). She trains 3 times a week and competes in races most weekends. She plans to do her first walking Ultra Marathon (50 km) later this year. She claims that walking gives her the energy required to keep up with her 3-year-old daughter.

Roger Armitage

Roger is Deputy Director of Economic Services for CANEGROWERS. He is responsible for providing strategic direction and management of CANEGROWERS' economic research and statistics functions, CaneFarms Bookkeeping Service, development and monitoring of AgriBEE, and involvement in various task teams within organized agriculture, such as the Kwa-Nalu Land Task Team. Prior to this, Roger spent four years as CANEGROWERS Regional Manager of the Tugela Region (Amatikulu/Entumeni). Roger is an avid paddler and enjoys competing in surf-ski races along the KZN coastline. He is also passionate about hooking anything with pectoral fins that swims fast.

Carolyn Baker

Carolyn is the Knowledge Manager at SASRI, leading the Knowledge Management Unit which manages SASRI's information and knowledge resources for the benefit of SASRI staff and its stakeholders; she networks with people and organizations to contribute to meeting SASRI's strategic objectives. Carolyn has served on SASTA Council since joining the Sugar Association in 2002. Before joining the sugar industry, Carolyn was a university academic



Paul Schorn



Deborah Sweby



Roger Armitage



Carolyn Baker



who specialized in small carnivore behavioural ecology. Carolyn's after-hours passion is training and working her Labradors. Her hobbies include reading, bird watching and walking in the Berg (Yes she is gifted in simultaneous multitasking!).

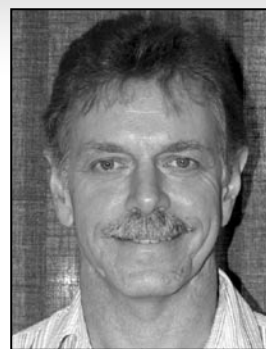
Steve Davis

Steve is the Head of the Processing Division at the SMRI. This entails managing research and consulting in the processing side of sugar manufacture. Steve has inherited the responsibility of presenting the "Annual Review of the Milling Season" at each SASTA Congress. Due to there being no SASTA Congress this year, the 2007 presentation will happen at the AGM in September 2007. Steve is a chemical engineer and his previous experience was in the fields of inorganic and minerals processing. Steve has served many years on SASTA Council, and is the Factory editor for Congress. This involves compiling the programme, co-ordinating the refereeing of papers, arranging chairpersons for sessions, appointing judging panels and many other "unseen" tasks and functions. Although the Congress is a once off function, a whole year of preparation, work and anxiety goes into achieving a successful Congress. In his spare time (yes he does get a bit!) Steve is very keen on the outdoors and is a committed birder. He is highly respected in birding circles for his knowledge and enthusiasm. His interest in birds is now expanding into an interest in butterflies, dragonflies, indigenous flowers and trees, as well as geology. Steve strongly believes that people must care for their environment, and that those who do not respect their environment do not respect themselves.

Janice Dewar

Janice is the Chief Executive Officer of the SMRI. She has a PhD in Biological Sciences and before joining the SMRI at the end of 2003, she spent fourteen years with the Council for Scientific and Industrial

Research (CSIR) based in Pretoria. There she spent ten years building up and managing a technical research group that consulted to the malting and brewing industry. Thereafter she moved into strategic management of Innovation and was responsible for setting up the CSIR's Minimum Acceptable Standards for Intellectual Property management and exploitation. Since joining the SMRI, Janice has placed a lot of emphasis on interacting with the sugar milling industry to gain a better understanding of where the industry sees itself going in the medium to long term. This has resulted in the SMRI developing a new research strategy which is aligned with the strategic objectives of the industry and focused towards assisting the industry to be profitable and sustainable into the future. Janice is passionate about the role that technology can play in improving the economy of South Africa and the quality of life of its citizens.



Steve Davis



Janice Dewar

Kathy Hurly

Kathy, having spent a number of years at SASRI as Scientific Liaison Officer and as Extension Manager, has recently joined Canegrowers as Director: Regional Services. Kathy's tireless energy has resulted in many SASTA Congresses and Workshops running smoothly and on budget. This year sees the culmination of a big project from Kathy – the hosting of the ISSCT Congress. Four years' worth of preparation, planning, working and anxiety has gone into the process so far, and the next few months leading to July 2007 will hold more adrenalin rushes for her.



Kathy Hurly

Dave Meadows

Dave is Executive Director – Technology Management at Tongaat-Huilett Sugar, where he is responsible for the development, application and optimisation of technology, the deployment of technical assets in the company, and the recruitment, development and deployment of technical human resources. Prior to this, Dave was the General Manager



Dave Meadows



of Hulett's Refinery, and his previous experience as a chemical engineer was in various design, trouble-shooting and technology development projects. Dave is married with three sons, is an ardent rugby fan, and is also passionate about drama, poetry, music, chess and art (roughly in that order, he says).

Adri Mehl

Adri is the Finance and Administration Manager at SASRI, a position she has held since July 2006. Adri joined SASA in March 1997 as an Accountant at 6 Durban Club Place, where she was also responsible for the Cane Testing budgets and management reports. Adri moved to the Sugar Terminals in 1998 as the Accountant and was promoted to the Finance and Administration Manager in August 1999. In April 2004, she transferred back to SASA in Mt Edgecombe as the Financial Accounting Manager and then moved to SASRI as the Plant and Environment Resource Manager in December 2005, before taking up her present position. Adri was co-opted to SASTA Council recently.

Stan Munsamy

Stan grew up in a small-scale grower community, where his family delivered 600 tons of cane per season to Shakaskraal Mill. From early days at Kranskloof Primary School, to Stanger High School and on to ML Sultan Technikon to do a National Diploma in Sugar Technology, then through a number of educational qualifications by correspondence (Dip Chem Eng, Dip Datametrics, B Tech at Technikon Natal, and Cert in Sugar Refining) while working in the sugar industry, shows Stan's commitment to achievement through education and experience. His present position is with Illovo Sugar Limited as Operations Manager at Sezela, in charge of Agriculture, Sugar Milling and Downstream Products. Stan has been a SASTA member since 1977, presented numerous papers at SASTA Congresses and one ISSCT paper. He has served on

SASTA Council since 1998 and was SASTA President for 2005-2006. His role on Council has been to encourage Factory involvement in SASTA workshops and Congresses, and the work he does for SASTA he sees as "giving back to the sugar industry". Stan's enthusiasm for life's work and enjoyment is well illustrated by his broad spectrum of passions and hobbies. He is entering his 20th consecutive Comrades Marathon in 2007, and has done the New York City and London marathons, and plans to do the Prague marathon in 2007! Stan finds time for other hobbies too – he loves his surf angling and the story telling that goes with it! His latest hobby is guitar playing, both electric and acoustic, and his goal is to play the lead part for Led Zeppelin's "Stairway to Heaven" before he puts his guitar down.

Suresh Naidoo

Suresh is a full-time grower who serves on the Board of Directors and on the Executive Committee of SA Cane Growers. Suresh's great grandparents came to South Africa as indentured labourers to work on the sugar plantations. After the period of indenture, his great grandfather worked for a sugar mill and miraculously managed to buy up land and established a small-scale sugar farm of about 30ha. Suresh completed his tertiary education obtaining a B Comm degree in Accounting and Auditing at Poona in India (The local Durban-Westville University, for "students of colour" in those days, was closed during the late 70s due to political/student unrest). Upon his return to South Africa, Suresh served his articles with a firm of Chartered Accountants in Durban and then worked in his family building construction business for a while. Fourteen years ago, Suresh had the opportunity to buy the family farm and over the years has expanded it to a 150ha operation. Suresh is married with two children and spends his weekends off-road bike riding with his son or scuba diving with his daughter. Suresh was co-opted to the SASTA Council this year and hopes to give a grower's perspective



Adri Mehl



Stan Munsamy



Suresh Naidoo



Barbara Schoonees



Adrian Wynne



to SASTA's work.

Barbara Schoonees

Barbara works for the SMRI as a Senior Research Officer in the Processing Division. This entails the management and execution of various projects to the benefit of the sugar milling process. She has served on SASTA Council for a number of years, and was the driving force behind compiling and publishing the SASTA Lab manual 4th edition on CD to replace the "old orange manual". Barbara has also been assisting Steve Davis as the SASTA Congress Factory side editor. She likes to be challenged and claims that she will try anything once. Away from work Barbara is an adamant computer gamer, and is passionate about music (from violin to rock), Border Collies, very mild outdoor excursions and Stephen King.

Adrian Wynne

Adey is the Director: Industrial Affairs for Canegrowers. He represents growers within the SASTA context and liaises directly with millers where appropriate. His roles are diverse ranging from representing growers on the SASRI Committee, the SMRI Factory Control Advisory Committee, and on committees involved in sugar pricing and foreign exchange cover. Prior to joining Canegrowers, Adey worked for an agricultural and environmental consultancy in Gauteng which was involved in land reform projects and wildlife and tourism initiatives. He then got married, and Adey and Lindsey (Ling) spent a year backpacking around the world. With a two-year old son and another "ankle-biter" on the way, Adey's main hobby recently has been nappy-changing, but he does enjoy birding and backpacking. Adey has run the Comrades Marathon a number of times, but says he is now content to occasionally take his surf ski for a paddle!

Correction on article from Oct 2006 Newsletter: Apology to Matthew Rein

Factory Section Winner of Cecil Renaud prize: "First Impressions of ADI chain installed in the Amatikulu diffuser" by Matthew Rein, Leon Smith, Bob Strachan and Rolf Wirminghaus (presented by Matthew Rein)

Please note my apology for incorrectly printing that the presenter of the winning paper in the Factory section was Leon Smith. It was in fact Matthew Rein who presented this paper.

Call for nominations for the SASTA Student Awards

Nominations are invited from SASTA members for candidates to be considered for the 2007 Student Awards, in either the Factory or the Agricultural sectors. Please send a detailed motivation to sasta@sugar.org.za. The student's thesis (and proof of it having passed the examination) can be delivered to SASRI reception, 170 Flanders Drive, Mount Edgecombe.

The criteria which are considered by Council are:

- * Outstanding post-graduate research as demonstrated by
- * A successfully examined thesis or dissertation that has given rise to internationally recognized publications or patents and
- * A motivation that details the relevance of the work to the sugar industry

Closing date for 2007 nominations was 1 March, but due to the AGM being scheduled for September rather than July in 2007, the closing date for nominations has been extended to: 2 May 2007.

Call for nominations for the Innovation Awards

Nominations are invited from SASTA members for candidates to be considered for the 2007 Innovation Awards, in either the Factory or the Agricultural sectors. Please send your nomination with a detailed motivation to sasta@sugar.org.za.

The criteria which are considered by Council are: The design, development and implementation of an idea, machine, process or technique which has shown definite value in improving technology, cost-effectiveness or sustainability or safety of factory and agricultural operations.

Closing date for 2007 nominations: 29 June 2007.

Notice Board

SASTA laboratory manual (4th edition) on CD ROM: R300.00 (incl VAT) per CD (price to SASTA members); R500 (incl VAT) per CD (price to non SASTA members)

Congress Proceedings 2000 – 2006 on CD: R200.00 (incl VAT) per year

Congress Proceedings prior to 2000 in hard copy soft-bound book format: R60.00 (incl VAT) plus postage (stocks vary per year)

Sugar Spoons: R125.00 (incl VAT)

SASTA Mouse pads: R100.00 (incl VAT)

Please send in your email address for loading onto the SASTA address book in order to get electronic notification of events.

All items obtainable from the SASTA Administrator: Danile Macdonald

Tel: 031 -5087543 (mornings only) Fax: 031 -5087420

Email: sasta@sugar.org.za



ISSCT 2007

Update on Preparations

In the previous SASTA newsletter the Congress Organising Committee gave an overview of the preparations for the ISSCT 2007 Congress, which begins in Durban on Monday 30th July at the International Convention Centre. In this edition an update is given on the plenary sessions and papers for presentation received from Vic Mason, Chairman of the ISSCT Executive.

Plenary Sessions

The three plenary sessions that have been arranged will once again be a primary focus of the Congress. The ISSCT Technical Programme Committee has selected three topics of immediate interest and international significance, and are fortunate that some of the world's experts in each area have agreed to contribute to these sessions.

Plenary 1 - Better Management Practices has been the focus of the sugar technologists from the earliest days of ISSCT. With increasing emphasis on all aspects of environmental and economic sustainability, it is vital that this focus continues. The three papers to be presented on this topic address issues associated with climate change and field and factory management issues.

- 'Climate change, global warming and better management practices' Bob Scholes, South Africa
- 'Better Management Practices in Sugarcane Fields' Graham Kingston, Australia with co-authors from Australia, Brazil, India, Mauritius and South Africa.
- 'Better Management Practices in the Factory' Marcelo Bellodi, Brazil

Plenary 2 - The Potential of Sugarcane for 2020 addresses the need for the industry's technologists to keep looking forward to support the long term future of the industry, recognising that the production of crystal sugar will increasingly be just one of the options available to the industry. This session will support and complement the key-note presentation to be given during the Congress opening ceremony by internationally renowned biotechnologist Dr Paul Zorner. The three papers are:

- 'Precision breeding to improve the usefulness of sugarcane' Frikkie Botha, South Africa
- 'Potential of sugarcane as an energy source' Regis Lima Verde Leal, Brazil
- 'Prospects for the conversion of a sugar mill into a bio-refinery' Peter Rein, USA

Plenary 3 - Marketing of Sugar: While crystal sugar in its many forms remains the primary source of income for the industry, the issues associated with marketing the sugar can never be very far from the minds of the industry's senior managers. It is therefore timely for this topic to be reviewed. Three presentations are planned although final arrangements are yet to be finalised. The three papers will consider this topic from the point of view of an economist (Dr Lindsay Jolly, International Sugar Organisation), a sugar marketer (Quinton Hildebrand, South Africa) and a purchaser of bulk sugar on the international market.

Papers for Presentation at Congress

It is still early in the process of reviewing and editing the papers for presentation at Congress. However the current indications are

- There will probably be so many papers of acceptable quality that, for the first time, there will need to be five parallel sessions at some time during Congress, and
- There will undoubtedly be a record numbers of poster papers.

This confirms that the South African Congress will be an ideal forum for the interchange of current and developing industry technology. The number of papers and posters in the review process are: -

Technical Commission	Full Papers	Poster Papers
Agriculture	37	55
Biology	40	28
Co-products	22	2
Engineering	42	8
Management	15	4

The Management Commission was formed as a result of interest expressed during the 2005 Congress in Guatemala. The specific introduction of management issues into the Society's agenda was very timely with members showing considerable support. The Commissioner for that section reports that papers of particular interest include some on new ways of re-assessing the cane payment system to include the benefit from all products and co-products produced by the sugar factories. This is a critical issue as the 'sugar' industry progresses down the path of becoming a 'cane' industry.

As in previous years, the interest in the Agronomy and Agricultural Engineering Sections of the Agricultural Commission remains at a very high level. The considerable amount of work-in-progress has led to a record number of poster papers. Special arrangements have had to be made to process this number of posters. ISSCT commends the ef-



forts that the South African Congress Organising Committee has made in this regard. It is particularly pleasing to report that the facilities for the display of the overall large number of poster papers are excellent.

The interest in factory-related topics is also very high. The Chair of the Factory Process Section reports that some most interesting papers have been received. The theme of pan boiling is the most widely represented with several high quality papers including one on vacuum pan dynamics which is beginning to break new ground. There are also five full papers on themes around cane processing quality with particular mention of papers from India and Reunion on the effects of the post-harvest degradation of cane.

In summary, there are certain to be papers of considerable interest to delegates whether their primary area of interest is in the field, the factory or overall industry management.

Anyone wishing to register for ISSCT 2007 may do so on-line at <http://www.issct2007.com> or contact Sonja Cadman at The Conference Company on Sonja@confco.co.za or Tel +27-31-3039852 or fax +27-31-3039529.

SASTA WORKSHOP

'Quality in the sugar industry'

Dates: 13 and 14 September 2007

Venue: Kwa-Shukela Auditorium, Mount Edgecombe

Cost: R600 (SASTA members)

R750 (Non-SASTA members)

Charge includes teas, lunches, cocktail function, and hard copies of the presenters' slides.

Programme:

The industry's principle experts in the various fields that influence sugar quality will be speaking. Sessions on cane varieties, cane harvesting, sugar milling and raw export sugar marketing are being planned. Time will be allocated for discussion and input from the delegates. We are in the process of securing speakers in the various fields. A final programme will be announced later in the year (by email and via the website). If anyone who does not have email or internet facilities would like a final programme faxed or posted to them when it is ready, please let Danny Macdonald at the SASTA office know.

The presentation of the "Eighty-second Annual Review of the Milling Season in Southern Africa (2006-2007)" by Steve Davis will precede the SASTA AGM on the second day of the workshop (Friday 14th September 2007). This will allow for any non-workshop-delegates who wish to attend the AGM only, to join in for Friday afternoon at no charge.

To reserve a place on this workshop, and to receive an invoice: email sasta@sugar.org.za or telephone 031-5087543. I will need your name, telephone number, email address and VAT reg number if applicable (for the invoice).

Delegates must make their own travel and accommodation arrangements.



ANNUAL GENERAL MEETING

OF THE

SA SUGAR TECHNOLOGISTS' ASSOCIATION

TO BE HELD ON

14 SEPTEMBER 2007

(on Day 2 of the Workshop on 'Quality')

Time to be confirmed later

AT

KWA-SHUKELA AUDITORIUM

MOUNT EDGECOMBE

AGENDA

1. Apologies
2. Minutes of AGM of 19 July 2006
3. Matters arising from the minutes
4. President's report
5. Membership
6. Financial Statement
7. Election of auditors
8. Result of ballot for Council members 2007/2008
9. Presentation of awards
10. General



Obituary - Dr PGC Brett

Born:09-01-1917 Died:19-02-2007

The Experiment Station, where Dr Brett spent most of his working life was established in 1925. A major reason for the decision to start the experiment station was to import and test varieties for use in the South African sugarcane industry. However, these introduced varieties were neither sufficiently high yielding nor disease resistant for South African conditions and it proved necessary to select the varieties under the conditions where they would be grown. Sugarcane in South Africa did not set seed naturally and true seed for this programme had to be imported from foreign breeding stations. This approach to obtaining locally adapted varieties proved very successful and Dr Peter Brett who joined the Experiment Station early in 1944 was instrumental in the release of many of these NCo varieties.

However, seed supplies were limited to the surplus from the cooperating breeding stations and it was not possible to have direct control on the parentage of the seed obtained. Dr Brett's work on the flowering of sugarcane enabled varieties to be crossed locally and greatly increased the size and scope of the variety selection programme. In terms of numbers, it is recorded that during the entire decade when true seed was imported from other countries, a total of 23 881 seedlings were obtained compared with the 200 000 that are produced annually today. Dr Brett was recognised for his "meritorious service to the South African sugar industry in the field of cane breeding" through the award of the SASTA Gold Medal in 1977.

Perhaps less well known was Dr Brett's practical ability. The field programme to evaluate the increased number of locally produced seedlings was large and complex. There were nearly 200 separate field trials on nine different farms. These trials comprised more than 40 000 individual plots, each one of which had to be inspected, sampled and weighed. The intricacies and size of the operation were overwhelming, but when I joined the Experiment Station, Dr Brett handed me a blue folder containing some twenty 'Roneod' sheets and said in his quiet way, "Perhaps this might be useful". It took me many months to fully comprehend the document, but by using codes and symbols, Dr Brett had planned every field operation required for the next ten years!

At Dr Brett's funeral, his son Dallas said in his eulogy that his father avoided the limelight; his contribution to the South African sugarcane industry and sugarcane breeders worldwide will remain a beacon.

Kindly written for SASTA by: Roger Bond

Membership Benefits and Responsibilities

Benefits of being a member of SASTA

1. Access to member prices for:

- Congress • Workshops • Field trips
- Lab manual 4th edition on CD

(If you had done all 3 events and bought a Lab manual in 2006, you would have saved R460 by being a member)

2. Access to interaction with other members of the sugar industry on a non-political and non-corporate platform, allowing members the freedom to tackle sectional issues on a common platform, which encourages innovation. Many issues and ideas originating from SASTA events have been taken back into the industry structures and progressed. A recent example is the Renewable Energy workshop.

3. Access to information, ideas, technology and networks from various sectors of the sugar industry.

4. Receiving two SASTA Newsletters per year

5. Listing on the SASTA members' electronic address book to receive email notification of sugar industry events and interests from around the world.

6. Eligibility (if Full or Honorary member) to stand for Council and vote for Council members, which affords you direct input on how the Association is run.

7. Priority access to SASTA events and publications.

8. Eligibility to nominate and be nominated for various SASTA awards.

Responsibilities of being a member of SASTA

1. Please note that this membership is in your personal capacity and thus you are liable for annual membership subscriptions, even if your company has agreed to make payment on your behalf.

2. It is your responsibility to keep SASTA informed of any change in your address details.

3. Should you wish to cancel your membership in the future, please let SASTA know in writing or by email.

