December 2021

Stampe Club

STAMPE CLUB NEWSLETTER

IT CAN ONLY GET BETTER!

Photography: Ronnie Macdonald on Flickr

OBJECTIVES OF THE STAMPE CLUB

To enjoy Stampe aircraft by promoting safe flying, upkeep, preservation and restoration, as well as to provide a forum for discussion, exchange of ideas and information and to act as a focus between members and international organisations responsible for licensing and flight safety etc.

STAMPE MEMBERSHIP

The Stampe Club is an international group of members in twelve different countries including Australasia, Europe, the Far East and North America and whilst the Stampe Club is an organisation presently located in the UK, the content of the Newsletter is intended to serve an international readership. **Contact: sec@stampeclub.org**

Communication is a wonderful thing!

The Stampe Club Newsletter is a friendly, generally light-hearted and hopefully informative publication skilfully created by volunteers.

The Stampe Club is always looking for good and interesting features for members. If you have any 'burning issues' or wish to rant on about something which is annoying you, let us know!

⚠ Please Note

The views expressed in this communication are not necessarily those of the Stampe Club. Readers should be aware that the content is written mainly by amateurs. While reasonable efforts are taken to check the accuracy of statements in this Newsletter, no confidence should be placed in them unless independently checked and confirmed by an appropriate authority. Contributors to the Newsletter possess no greater expertise than that of their readers. Therefore, no advice, guidance, recommendation or factual statement should be relied upon until checked against a more dependable source. Neither the officers nor the contributors nor the Stampe Club accept responsibility for facts or opinions stated in this Newsletter.

Contents

For more information visit **www.stampeclub.org.**

Subscriptions For 2022

Over the coming weeks, members will be reminded by the Club Secretary, Richard Ward, that subscriptions for membership are due on 1 January 2022. Fortunately, due to the unpaid efforts of volunteers, the annual subscription to the Stampe Club remains at 25.00 GBP.

When possible, payments should be made by electronic transfer using your family name as a reference. Members are asked to pay any banking transaction costs.

The Club's banking details are as follows:

The Stampe Club
Lloyds Banking Group plc
Account No: 00327041
Sort Code: 30-92-40
IBAN: GB15LOYD30924000327041
BIC: LOYDGB21391

Cheques can be sent to the Club Treasurer, Jo Keighley at:

Jo Keighley
12 Pelham Place
London
SW7 2NH

Changing Times

Dear Member,

The last eighteen months or so have, to say the least, been very difficult for everyone. Life styles have changed due to the Coronavirus. Some say that these changes will stay for the foreseeable future. Maybe!

Apart from the obvious changes caused by the Coronavirus, global warming, and particularly the burning of fossil fuels, are things that Stampeists will need to consider, if not for ecological reasons, then certainly for economical ones.

With the festive season just around the corner, this Newsletter offers an opportunity to wish all members and their family and friends a very **Happy Christmas**.

Photography: Photo by Airam Dato-on on Unsplash

Dates For Your Diary

STAMPE FLY-IN

Saturday/Sunday 2/3 July 2022
Pithiviers (LFFP) France

Cancelled last year for obvious reasons, but (fingers crossed) scheduled for 2022.

This is a must for those who want to experience a friendly fly-in with 'bucket loads' of bon amis. A great two day event of fun in great company.


Photography: Ronnie Macdonald on flickr

FUN DAY FLY-IN AND BARBEQUE GET-TOGETHER!

Saturday 9/Sunday 10 July 2022
Headcorn (EGKH) England

This special event is being held in the memory of Angus Buchanan who would be the first to enjoy a fun day near what was his 'home' airfield in an area often referred to as 'The Garden' of England.

To keep a Buchanan involvement, one of Angus' daughters has volunteered to judge the 'most interesting Stampe'. This is not the same as a contours competition. It is the most 'interesting' Stampe, however that is defined.

It is anticipated that Stampes from far and wide will attend and, weather permitting, stay overnight at one of the many guesthouses and/or hotels in the area. If you cannot fly (for whatever reason), consider a short break holiday. Bring your partner or whoever. The more the merrier!

For logistics, it would be useful to get an idea of the numbers. No commitments, just an indication of interest.

Contact Richard Ward:
sec@stampeclub.org

Carbon Neutral Fuel

Whilst the idea of e-fuel might sound odd, it is all about the science. Put simply, anything in a barrel of oil could be synthesised. That is produced chemically from scratch.

First developed in Germany in 1925, the Fischer-Tropsch process is now being developed using renewable energy to extract hydrogen from water and CO2 from the atmosphere. Then, using high pressures, high temperatures and catalysts, these elements are synthesised into hydrocarbon fuels such as petrol, diesel and jet fuel. This type of fuel is not to be confused with bio-fuels which are processed from plants.

The burnt waste from these e-fuels contains no sulphur, but does include nitrogen oxide and particulates, albeit in lower quantities (due to the purer fuel) and the same 'dreaded' CO2.

However, since CO2 is a major ingredient in the production of the fuel by capturing it from the atmosphere, this counterbalances the CO2 produced during the burning process, thus making the synthetic fuel carbon neutral. The production of this type of e-fuel requires a lot of renewable energy so the efficient use of wind and solar power is crucial.

Progress at the moment is presently being made with commercial aviation when a passenger plane operated by KLM recently became the first to be partly powered by aviation e-fuel produced by Shell. Could this be a new beginning for aviation e-fuel?

Could Covid Affect Your Medical

An interesting review of the situation in the UK and USA for those who have contracted Covid taken from a recent edition of the AOPA magazine.

Pilots who are diagnosed with Covid-19 must notify their Aviation Medical Examiner (AME).

In the USA, a FAA Safety Bulletin was quoted as saying 'Anyone with a medical should have the documentation from your illness available for your AME to review, regardless of the severity. The AME can guide you on what is necessary.' If you were hospitalised, we need the hospital records including admission and discharge notes, testing and a status report from the treating physician. We also need a status report for anyone with persistent symptoms.

These include 'manifestations including dysfunction of the cardiovascular, respiratory, renal, or neurological systems. You should report mental health symptoms such as fatigue, shortness of breath, cough, chest pain, headache, fever, loss of smell or taste, dizziness when standing, joint or muscle pains to your AME.

The CAA says UK licence holders who are admitted to hospital and/or have continuing symptoms from Covid-19 should seek advice from their AME before they next fly. Medical reports relating to more serious periods of illness will need to be reviewed by an AME. It states that 'Pilots who make a full uncomplicated recovery should not fly for a minimum period of seven days from full symptom resolution.'

Photography: Sasun Bughdaryan on Unsplash

Stampe MX 457 in RAF colours in 1942

This is a fascinating and interesting letter from Club member, Mark Cosgrove who writes from Michigan, USA. Was MX 457 the only (liberated) Stampe used by the RAF?

The other evening, after a long day of working on converting my small shed to a 'Stampe Restoration Facility', I planted my achy bones in my favourite chair and, as I often do, looked for vintage aviation videos on You tube. I selected one entitled 'RAF Hornchurch' and was treated with colour images of Spitfires coming and going as well as other activities at that wartime airfield. The video was quite interesting and the fact that the film, was shot in colour made it more so. As I watched clips of Spitfires touching down on the sod runway, I was quite surprised to see a familiar sight. At 14:10 into the film, a Stampe in RAF colours came right past the camera on a short final approach to the field. The camera followed the aeroplane until touchdown. Later, between 14:24 and 14:37, the Stampe can be seen parked as more Spitfires arrive. Of course, based on my limited knowledge of the subject, this could only be the Stampe flown from Belgium by Flight Sergeants Michael Donnet and Leon Divoy, and later pressed into RAF Service as MX 457.

Perhaps the film of what is supposed to be the only Stampe in RAF service is well known, but I didn't know about it and I was quite excited to discover it. I played the landing sequence several times, stopping the film to see if I could read the markings in the aeroplane. I could not see the serial number by the tail, but I did see markings under the left wing. Those markings looked to be '7777'. That was confusing to me, as I expected 'MX 457'. I was able to stop the film where I had a direct view of the number just forward to the tail, however again, try as I might, I was not able to read the number. Were there other Stampes in the RAF? Did the '7777' marking have some other purpose? Was the identification changed at some point? Or, was this a different Stampe?

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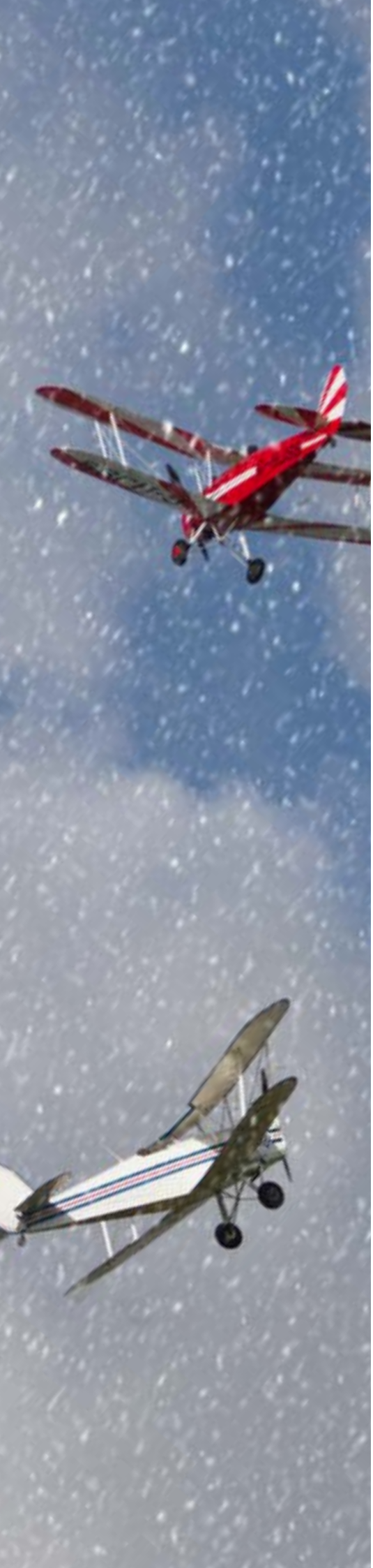
As I studied the camouflage pattern and compared it to a known picture of MX457, it appeared to be the same. I realise that there were standardised patterns for specific types of aircraft, but the patterns on the film aeroplane and the most published picture of MX 457 appeared to be identical with regard to what could be observed.

I invite my fellow Club members to view the film as it is interesting, in its own right. Does anyone have any further information on MX 457, the '7777' marking, or of additional Stampes in the RAF?

Editor's Note:

Records suggest that RAF Stampe MX 457 was the only Stampe in the RAF and was duly returned to its owner, Thierry d'Huart in Belgium, in 1945. But what happened to it then?



Engine Care During Winter

How to look after your engine during winter – another look at the limited options!

In many parts of the world, winter brings its own challenges. Not just flying (if you can) but keeping your aircraft, and particularly the engine, in good condition. It is a battle against condensation which is the real problem.

Like all machinery, aircraft engines work best when used regularly. Indeed, engine experts talk about under-used engines being those that 'run' for less than once every two weeks at normal operating temperature. However, the word 'run' should be 'fly', as most experts will say that simply wheeling your Stampe out for a ground run for 10 to 15 minutes will probably do more harm than good. This is because ground running will never get the engine hot enough to burn off any condensation within the oil. It can also cause uneven heating, particularly at higher power settings.

During the winter, the condensation can (or rather does) mix with burn fuel and oil deposits to form a nasty acid which will eat away at your engine bits. Consequently, an oil change at the onset of winter (or rather the end of the flying season) reduces this risk. In other words, its best to leave your engine over winter filled with clean oil.

Photography: Ronnie Macdonald on Flickr

So what do you do when you can't fly? Pull the prop through regularly. Well, maybe better than ground running, but still has its limitation. All this will do is to remove some surface rust. A case of something being better than nothing!

You could also take more positive and relatively inexpensive measures such as a small electrical heater. The sort of thing used in greenhouses. The flexible heated cable type can be wrapped around the engine in order to keep the temperature above dew point. They are cheap to run and surprisingly effective.

In addition, you may wish to consider an insulated thermal blanket within the engine cowling. You could also install dehydration plugs when moisture has been absorbed. All these items are fairly cheap to buy.

For lay-ups over a couple of months, you should really consider using specialist preservative oil as well as desiccant plugs. However, even this regime has its own problems. In particular, to remove some types of preservative oils you need to heat the engine with a ground run.

Not good. Fortunately, to get around this problem, there are 'fly away' preservative oils, such as Aeroshell 2XN, available. These specialist oils can be mixed with regular engine oil. However, if your engine is going to remain idle for an indefinite period, you should consider an undiluted preservation oil.

At the end of the day, it is a case of choosing the best of a bad lot!

Are We Ready For Aerobatics?

Richard Ward follows up on his previous article about aerobatics which are primarily intended for the inexperienced and/or out-of-practice Club member. Frankly, with problems associated with Covid restrictions and the weather, there are likely to be many members who are out-of-practice!

In the previous article, we looked at some of the technical aspects that we need to understand with regards to our aircraft before we embark on learning aerobatics. There are also physiological aspects to consider with regards to our human frame and the effects of 'g' forces on the body and mind as well as the possibility of disorientation and airsickness. Detailed analysis of these sensations are beyond the scope of these short articles, but rest assured that if you find your initial experience of 'g' forces and the attitudes involved in aerobatics disconcerting, you are certainly not the first. Exposure will slowly render these sensations less alarming until you find that they become a new norm and you suddenly realise you are flying manoeuvres without a thought of your own personal attitude but concentrating on the flying alone.

One important element that will help reduce any anxiety is to ensure you are correctly and comfortably strapped in. The primary harness (the one that attaches you to the seat) should be firmly tightened at the crotch and the lap belt and comfortably tightened at the shoulders. For the transit to your practice area, the shoulder belts can be left relatively loose for comfort and then given an extra tighten prior to commencing aerobatics.

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At the same time, with the seat in its lowest position, the secondary lap belt (the one that attaches us and the seat to the airframe) should be fastened and tightened. Then the seat is raised into the belt to suit your own preferred flying position. This will ensure that when you are inverted, there will be no relative movement between one's backside and the seat. It is a natural fear, especially in an open cockpit, whilst inverted.

However, with primary and secondary straps secured, together with the knowledge that four bolts (correctly tightened and wire locked) hold the seat in place along with the secondary harness, you are not going anywhere. Again, further experience will ensure that you become accustomed to the sensation of inverted flying.

Now onto the flying. Before we start turning upside down, we need to refamiliarise ourselves with some basic handling exercises such as stalls, steep turns and spins, incipient and developed. There are some new exercises we can fly, such as 45 degree climbs and descents that will also help us control yaw and pitch under dynamically changing flight conditions.

Let us first explore the stall. We will probably be aware a Stampe is relatively benign and can easily recover from a stall. Having carried out our pre-aerobatic checks, we set the aeroplane up for straight and level flight and then close the throttle and maintain straight and level flight. Remember as we close the throttle, we will need right rudder to maintain balance. This is important as we want

to see the stall entry without yaw and thus avoid an incipient spin. It is interesting to note the position of the stick when the stall arrives. You will note that the stick is not fully back when 38 knots/70 kph/44mph is reached and the nose nods downwards. Try to feel the pre-stall buffet which is the airflow beginning to break away from the aerofoil. That is telling us that the airspeed is low, but more importantly, the wing is reaching its critical angle of attack. This is not so noticeable in the Stampe in level flight, but becomes more pronounced when stalling at higher speeds under increasing 'g' forces.

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Recovery to level flight is made by moving the stick smoothly forwards to reduce the pitch attitude and thus the angle of attack and smoothly applying full power. Again remembering the rudder to maintain balance, this time to the left. Slow flight at speeds just above the stall, around 45 knots/84 kph/52mph and gentle turns also helps coordination.

Steep turns will also help our coordination and start to familiarise ourselves with attitudes beyond those that we have perhaps been flying to date. Flying a 60° banked turn through 360° and immediately reversing the direction whilst maintaining in balance and altitude is a good pre-aerobatic exercise.

Remember, if we start to loose altitude, because we have let the nose drop, ease off the bank, re-establish our altitude and then begin to increase the bank back towards 60° once settled. It is difficult to regain altitude at 60° of bank as the majority of the lift vector is not pointing upwards.

Our stall speed in level flight is 38 knots/70 kph/44mph and this will increase by the square root of the load factor 'g'.

From geometry, we can prove that a 60° banked turn will impose 2 'g' on the airframe i.e. the lift produced by the wings is double the weight of the aircraft. At the same time, the stall speed will increase by 38 x √2 to 54 knots/115 kph/62 mph so flight at 80 knots/148 kph/92 mph will give adequate margin. However, if we were to try to recover lost altitude without rolling off the bank, then the 'g' force could increase and we may feel some buffet as we approach the stall.

Flying the 60° banked turn at 60 knots will require us to be very accurate as it is only 6 knots above the stall. We will have to be nice and smooth and if we feel buffet, ease off the angle of bank and at all times, ensure, by quick checks of the ball every 10 seconds or so, that we are in balance. With experience you will learn how much rudder is required at varying combinations of speed and power so that moving your feet in concert with the throttle will become second nature. This will help in future aerobatics.

Flying upwards and downward in a 45° line is a useful skill to have. This involves flying a combination of a full power 45° climb until the speed reaches 40 knots/74 kph/46 mph and then pitching forwards to establish the 45° down line, without reducing power, is a great exercise for maintaining balance under rapidly changing conditions. To establish the exercise, accelerate to 110 knots/204 kph/127 mph at full power and then pitch upwards, checking the wing tip against the horizon to judge the angle of 45°.

Remember to check both left and right wings to ensure they are level. In the 45° climb, the speed will be rapidly reducing and so more left rudder is required as rudder effectiveness is lost and the propeller slipstream becomes more concentrated around the airframe. In the descent, your feet will have to move the opposite direction to remove the left rudder as the speed increases and as you approach 110 knots/204 kph/127 mph, pitch back to level flight and reduce power to cruise setting.

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Depending on how you were initially taught, the spin will fill you with terror or excitement. Regrettably, many pilots remember nothing but fear and have been put off spinning for life. In contrast, the aerobatic spin entry is a more controlled and gentle event as we want an element of precision and, in this case, we want to observe the entry and note the signs of the impending spin.

If we estimate that in each turn of a developed spin we will lose 400 feet and recovery will take another 400 feet, then for initial practice, aiming to recover by 2000 feet agl, a two turn spin should be made at no less than 3,200 feet agl. If you have not flown anything other than straight and level in a few years, you may want to add another 1000 feet to these numbers.

The first exercise should be a look at the incipient spin and the recovery as this will help us recognise the onset. In level flight, close the throttle and maintain wings level, remembering to keep the ball in the middle with the application of right rudder.

You will find that as we approach the stall, the stick will still have several inches of rearward travel available.

At 40 knots/74 kph/46 mph, smoothly apply full right rudder and bring the stick back to the stop, making sure that the stick is moved centrally aft with no aileron input. This is harder than it sounds as, due to the geometry of a pilot's upper torso, hand movements normally arc around the elbow. So practice on the ground, moving the stick in roll without any pitch input and then in pitch without any roll input. It is time well spent!

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One definition of incipient spin is when the aircraft begins an uncommanded roll. As the secondary effects of yaw take effect, a Stampe will begin to roll to the right and, at this point, with the throttle still closed, centralise the controls. The nose will drop and as the speed increases, the roll will stop leaving you with the nose pointing downwards and the speed increasing. Gently begin to recover to level flight and add power, being wary of engine RPM.

Climbing back to the chosen altitude, it is worth going through abbreviated checks such as English mnemic of HASELL, which can be shortened to HELL,' height, engine, location and lookout'. Rehearse the full spin entry and recovery. When trying something new or unfamiliar, it can be helpful to talk out loud the intended actions. This also gives the instructor a chance to spot any errors or omissions before they occur.

Approach the spin entry as per the stall with the throttle closed and maintaining level flight and a speed reduction of around 1 knot per second. Do not trim nose up as the speed reduces as this could make recovery more difficult so accept the force required on the stick.

As the speed approaches the stall, around 40 knots/74 kph/46 mph the stick will have some rearward travel remaining and so smoothly and gently apply full right rudder as well as the rest of the rearwards movement of the stick. A Stampe will yaw right and, with secondary effects of the yaw, will cause a right roll as the nose drops and we establish into the spin.

The defining characteristics of the spin can now be observed. A nose low attitude, the speed is low and not increasing, but the rate of descent is high as the aircraft pitches, yaws and rolls at the same time. The Stampe enters the spin comfortably and smoothly, but after one turn, the yaw rate will increase and if pro-spin controls are left in, the rotation rate will feel quite high. With the throttle closed, apply full opposite rudder, left in this case, and then smoothly move the stick centrally forwards until the spin stops.

Previous practice on the ground moving the stick backwards and forwards without any aileron input will have helped to do this. The rudder is moved first as the surface area of rudder above the elevators is potentially blanked.

If we move the stick forwards before the rudder, we increase the area of the rudder that may be blanked as the elevators go down and reduce the amount of rudder that can be effective in stopping the yaw. If your Stampe has a turn and slip, the direction of the turn indicator indicates the direction of yaw and can be used to deduce which rudder to apply if necessary. These actions will lead to a recovery to a steep nose down attitude of around 60°. Standard recovery will take half a turn.

Now we are ready for the joys of aerobatic flight. In the next article we will look at starting out with the basic aerobatic manoeuvres, the loop, roll and the stall turn.

Be Careful, Be Safe!

We want your stories

With members all over the world, it would be interesting to learn how things are going in your 'corner of the world'.

So, if you have anything you would like to say (particularly if it is amusing and/or controversial) or simply interesting to other members, please send it in. Don't worry about your writing skills, it is the story that counts!

Please note the 'deadline' date for anything to be considered for inclusion in the next Newsletter is Friday, 17 December 2021. Feedback in response to any of the items raised is always welcome!

Contact:
newsletter@stampeclub.org

Get the best from the website

It is the Stampe Club's objective that the website should be 'the place' to find what you require. Getting good and reliable information is the biggest challenge (and will become more so) so please share what you have for the mutual benefit of other Club members.

The 'forum' section of the website is particularly useful as Club members can communicate directly with each other to discuss any/all aspects of Stampes from the very simple to the complicated. It's worth a look! Communication within the Club is generally made via the Club's Newsletter, albeit that more urgent stuff is communicated via email.

For more depth and detailed information, the Club's website is the place to start. It has a lot of historic information, including original drawings and much more, including lots of useful data. **Visit www.stampeclub.org.**

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