Auxiliary-Powered Sailplane *NEWS*

The Official Publication of the Auxiliary-powered Sailplane Association, Inc.
Dean Carswell-President • Bruce Templeton-Vice-President
ASA IS A DIVISION OF THE SOARING SOCIETY OF AMERICA

Issue # 77 Vol. XII **November-December 2000**

President's Message

It is remarkable how time flies by - another season is effectively over and most of us are making holiday and winter preparations. As motor glider pilots, that does not just mean scratching our heads to find suitable gifts for significant others, it also means taking appropriate care of our ships.

If you are fortunate enough to live in an area which permits flying year round, and you take that opportunity, then no worries. However, if winter causes you to have an enforced stand-down, you should run your engine regularly (at least monthly) without fail whether you fly or not. If it is liquid cooled, you should drain the fluid between runs or ensure that it is of a specification that will not freeze. The alternative is to ensure that it is fully inhibited and winterized. Only by doing this can you avoid serious risk of a nasty and costly surprise in the spring.

Having said that, I should like to wish you and your families a pleasant holiday season and a safe new year. As part of your planning for the latter, try and include a visit to the 2001 SSA Convention in Indianapolis, and attendance at the ASA Lunch and Annual Meeting of Members on Friday February 9, 2001. I hope you will come along and that I shall see you there. *Dean Carswell*

Auxiliary - powered Sailplane Association
Annual Meeting of Members
Friday February 8, 2001

NOTICE is hereby given that the ANNUAL MEETING OF MEMBERS of the Auxiliary - powered Sailplane Association will be held at the SSA Convention in Indianapolis IN on Friday February 8, 2000 at 1.00 p.m. All members are entitled to attend and vote at the meeting.
(Signed) Bruce A. Templeton, Secretary

The Meeting will be held in conjunction with the ASA Lunch at the SSA Convention; members do not require to go to the lunch to attend the Meeting.The business of the Meeting will include the election of Directors in place of those retiring. If you wish to nominate a person for election, please make the nomination in writing to the Board of Directors, Auxiliary - powered sailplane Association, c/o 8041 Jordan Lane, Midlothian TX 76065-5956,USA.

ASA (SLSPA) Founders at 1988 SSA Convention

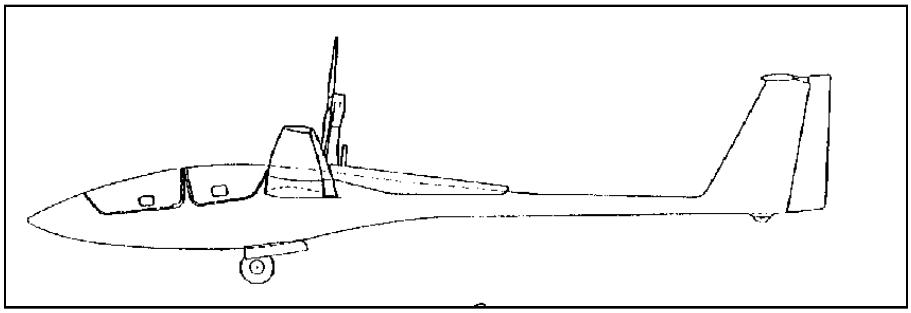
March 2001 will mark the 13th year since the founding of ASA at the Atlanta SSA Convention. There were 13 original charter members. Some shown above are in bold face type. Left to right top row: Paul Gaines, Gerhard Glaser's son, **Jacob Van Dyke, Curtis Irwin, Jerry Wenger, David Stevenson, Oliver Dyer-Bennet,** Wilhelm Dirks, Gerhard Glaser. Bottom Row L-R: **Pete Williams, Egon Stockenbojer, Jim Culp, Skip Atwell** and **Don Aitken.** Not shown are **Steve Wood, Bob Gaines and Frank Updhurch.** A review of membership shows 80/Oct 88; 132/May 89; 183/Sep 90; 220/Sep 91; 198/Sep 92; 221/Sep 93; 257/Oct 94; 308/Oct 95; 343/Dec 96; 286/Sep 97; 331/May 98; 395/June 99; 391/May 2000.

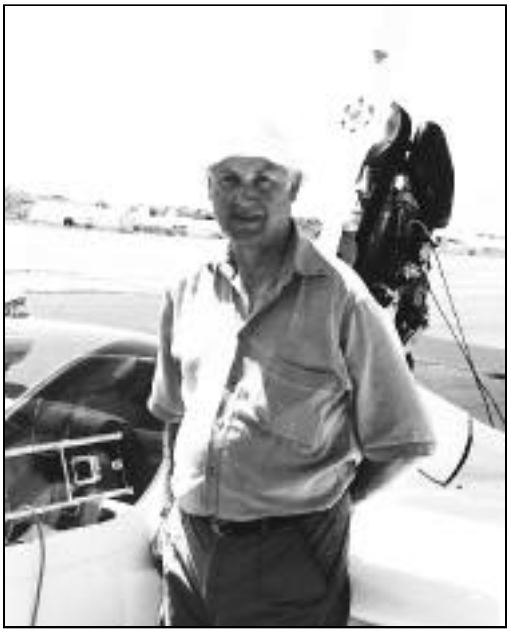
Commemorative Issue 1988-2001

This Newsletter is dedicated to the leadership of the Founders, the Board of Directors and to the officers and committee leaders of the corporation who are volunteers, serving without compensation. This includes Eric Greenwell, Brian Utley, Marc Arnold, Bud Schurmeier, Bruce Templeton, Bob Saxton, Pete Williams, Stan Nelson, Dean Carswell, Steele Lipe, John Schmidt, Jack McKenney, Don Aitken, Susan Capitano, Oliver Dyer-Bennet, Rick Howell, Jerry Wenger, Don Hurd, Don Pollard, Tupper Robinson, Jim Culp, Tom Dixon and Alan Greer. It is also dedicated to the faithful membership, many of whom have been ASA members for many years. Lets face it, there is no other organization or group of pilots in the soaring world quite like the ASA!

Due to the overwhelming response for photos for this isssue, photos and stories will continue in forthcoming issues.

ASH 25M: This 25-meter self-launcher was designed by Schleicher's Martin Heide and first flew in March 1994. The current production model is powered by a Mid-West fuel injected Wankel engine producing 57hp at 7,500 rpm. This contest proven sailplane has a glide ratio of 58 at 51.3 kts.





Harm Garrelts stands by his DG-500M during a visit at Minden Tahoe Airport in July-August. Originally from Holland, Harm lives in Queensland Australia. He is a retired medical electronics executive and has 1,500 sailplane hrs (500 motorized). He has a DG-505MB on order and bases his 500M at Minden.

Ever wondered what the actual shape of a DG-400 fuel tank looks like? Charm Williams holds a tank found at DG-USA's shop. Your are looking at the right side of the tank. Her right hand is on the filler inlet. The sump or lowest part of the tank is at bottom, left.Not seen is the outlet which is on the left rear side.The concave section on the forward right side is where the oxygen bottle fits. The bands of copper surrounding the tank measure the fuel capacity within the tank. It is believed the DG-800 tank is similar. Capacity is 22 liters (5.8 gal.) The tank is located on the right side of the fuselage just aft of the landing gear wheel cavity.

Karl Abhau (L), and Walter Binder prepare for a flight in Karl's Nimbus 4DM at Minden. Walter"s engineering firm at Ostheim, Germany has developed most of the engine installations in German self-launchers working as a consulting engineering firm with the factories. Herman Maurer, Karl's crew is seen in the background.

Report on Open Class Nationals

by Stan Nelson

We had a real hot 13 days in Uvalde, Texas. Since I had not flown there before, I arranged to have a 15 Meter competition pilot friend of mine who had flown Uvalde several times fly with me as tactician. I knew him to weight 135 lbs. He showed up weighing 185 lbs so I had to take the engine out to fly at 750 kg(1653 lbs) maximum. I did pretty much as he said so far as speeds, thermal selection and Post Task turnpoint selection. It did not work out as well as we would have liked. I placed 10th. Sherman Griffith won again. Great Pilot! There were 8 pilots who were World Team members at one time or the other. I learned a lot about the micro weather system in south Texas. There
was quite a bit of 'blue' flying. Most tasks over 300 miles every day. I flew 2,400 miles during the whole contest. More than diamond distance on most every day.Those guys cruise at 100 knots and sometimes 110 knots. Unbelievable. I now have larger winglets on my glider and I can tell you my glider is every bit is good as the ASW22 and the new Nimbus 4's. Pilot skill and knowledge of the area made the difference. The first day half the fleet landed out and we made it back. Ron Tabery bought Don Pollard's ASW22BLE. Ron landed out on the first day instead of starting his engine. He said he was too low and not
enough experience starting engines.
I think he was the only one who flew with an engine installed.

Ed Note: Stan has an ASH-25MI self-launcher

The Maiden Flight of the DG-1000
2-seater from DG Flugzeugbau GmbH
A report from the test pilot...

Thursday July 27, 2000, the long awaited moment had come. After releasing the tow rope the DG-1000 showed me her real qualities: very good coordination of aileron and rudder control with low aileron control forces and quick maneuverability. Trying the first stalls I could pilot the DG-1000 into a controlled stall without the wing dropping. Thermalling in the weak thermals which had just started to form showed very stable flying characteristics. The upward bent of 15' of the outboard wing panels which was designed to improve the flight performance seems not to decrease the maneuverability but to improve the stability. Soon I felt at home and wanted to go cross country.

I entered the final very high to test the air brake effectiveness, as due to the new thin wing designing the air brakes has been a tricky task. After landing our factory manager asked me how many flights I had already performed with the DG-1000. He couldn't believe that such a short landing was possible landing a new glider flying it for the first time.

A comparison flight with another 20m 2-seater came next to get a first impressions of the gliding performance. Without going into details it can be stated, that the design goal is met. In particular the high speed performance is impressive. When flying through light rain the DG-1000 performance gain was even more noticeable.The last flight that day was executed with the short 18m span. In this configuration the DG-1000 again had excellent characteristics.

Although I had some concerns concerning the ground handling characteristics I soon found out that the handling is very pleasant. Due to the high landing gear the wing position is so high, that it is very comfortable to push back the glider. The installation of a tail dolly is easy, only a light force is needed to lift the tail if one person pushes down at the fuselage nose. Submitted by: *Dipl. Ing. Wilhelm Dirks, DG Flugzeugbau GmbH, Im Schollengarten 20 D 76646 Bruchsal, Germany*

DG-1000 Vital Statistics

SPANS	18M/20M.
WING AREAS -SqFt	180/188
EMPTY WT-Lbs	882/904
MAX TO WT-Lbs	1653/1653
MAX WING LOADING	9.20/8.76
VNE	146Kts

Editor's Note: It seems only natural to assume there will be an engined version of this new sailplane

Publications Available from ASA

Rotax 501/505/535 Pilots Manual.....$2ea
Rotax 501/505/535 Repair Manual.....$3ea
Rotax 501/505/535 Parts Manual.....$4ea
Self-Launching Sailplane Operation.....$4
DG-800 Pilot's Brief.....$3
Flying the DG-400 .....$3
Safety Survey of Motorgliders.....$3
Powered Sailplane Maint/Service/Repair & Defect Survey.....$3
Incident/Accident Survey.....$3
Safely Flying Self-Launch Sailplanes.....$3
SOLO 2350C Engine Service Manual.....$4
FAA AC61-94 Checkout in Motorglider.$1
Send check to ASA Publications c/o Pete Williams 1033 Dresslerville Rd. Gardnerville, NV 89410

Web Site Numbers

NAA- http://www.naa-usa.org
SSA- http://www.ssa.org
ASA-http://www.motorglider.org
FAI- http://www.fai.org
EAA- http://eaa.org
Eric Greenwell is the ASA Web Master. You can email him at egreewell@prodigy.net

Pilot Profile

Pete Williams has been flying sailplanes since 1969. Since then he has owned seven sailplanes including 2 self-launchers. He has logged over 8,000 hrs, including 3,000 in sailplanes with 1,300 in powered sailplanes. In 1988, Pete founded the SLSPA now known as the Auxiliary-powered Sailplane Association. He is the author of the book Self-Launch! Retractable Engine Sailplanes and is the editor of the ASA Newsletter. Pete's motorglider hrs include flights in the DG-400, 500M&MB, 800 A&B, Nimbus 3DM/4DM, Grob 103 Twin III SL, Stemme,Taifun 17, Grob 109 & Super Dimona, He and his wife Charmagne live in Gardnerville, Nevada.

The below two news items were published 1 September in AOPA e-Pilot Newsletter

AVIATION GETS A NEW SPARK

Dr. Forrest M. Bird recently took off in his Piper J-3 Cub without spark plugs or magnetos, according to information released to "ePilot" Tuesday. Instead, the engine was running on SmartPlugs, a new catalytic ignition system that doesn't have moving parts and doesn't require a high-voltage source. During testing in Sandpoint, Idaho, Bird said the engine ran flawlessly between 2,300 and 2,700 rpm. The biggest advantage of the system is safety, while it also enables engines to burn low-octane fuels without detonation, weighs only three pounds, and can operate at high altitudes, said Mark Cherry, inventor of the SmartPlug. The technology was developed and tested over the last 10 years by Automotive Resources Inc. The system is internationally patented and has been licensed to kNew Corporation, a newly formed manufacturing and marketing company in Sandpoint. SmartPlug has received funding from NASA, the Environmental Protection Agency, and the Department of Defense. The company intends to, in turn, license the technology to a manufacturer that would then take it through the FAA certification process. For more information, call 208/265-2723 or e-mail:SmartPlug@aol.com . *Ed. Note: Think of the impact this new technology can have by simplifying self-launching sailplane ignition systems, reducing wiring complexity and increasing reliability and safety.*

GERMAN DESIGNERS DEVELOP GIANT GLIDER

A group of famous, race-winning glider pilots has commissioned German designers to develop a giant ship, capable of a new level of cross-country performance. Called the eta after the seventh letter in the Greek alphabet, the two-seat glider has a 31 -meter (101 -foot) wingspan--making it the largest sailplane in the world--and a retractable engine for self-launching capability. It made its maiden flight on July 31, and no problems were reported within the first 30 hours of flight testing. The performance figures are still being determined, but it's designed for Open Class racing where modern gliders have achieved glide ratios of 60 to 1. Photos of the eta show how the glider, which weighs 2,000 pounds at maximum gross weight, easily dwarfs a comparable 18-meter ship. The design is intended for production. To stay current on the glider's progress, visit the Web site http://www.eta-aircraft.de. *See Page 7 for more details....*

News and Views

Solo engine powered **DG-800B** launching from a grass field near the factory in Germany. Circa 1998. Schneider

"Glider Bob" Saunders, right, flight demonstration pilot for Stemme USA at Minden-Tahoe Airport during a demo tour.

Left: ASA member **Vince Power's Dimona**

Our 1982 H-36 Dimona was purchased in December 1997. My husband has flown and owned several single engine, and experimental planes in the past several years, but he didn't seem fulfilled, that is until he began flying gliders.

This is when Vince found his true love of flying. He said it gives you a purpose when you go up in the skies, a challenge..... I don't fly so of course I don't get it, and I may never get it, but I can see through his eyes the happiness and joy that it brings to him, and that is what it is all about.

We are currently building a home in an airport community in Port St. Lucie, Florida with a 3000 turf airstrip.

Vince and I hope one day soon to be able to take a little time off from our business and fly to the various areas with the great gliding spots.

I will be with him, and I will sit and watch and enjoy the beauty of the glider as it passes through the sky and listen to the gentle whoosh as it gracefully glides by.That is tomorrow's dream.

Submitted by Carol Power

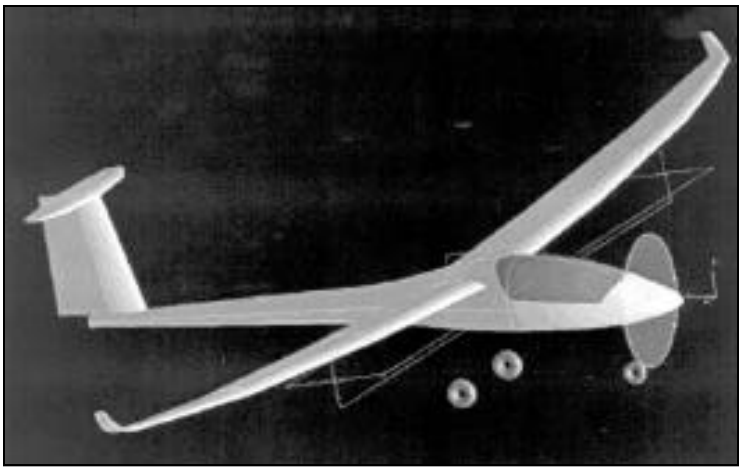
Vince & Carol Power
564 53rd Square
Vero Beach, Florida 32968
561-794-1551
Email: carol@powergate.net

Gene Hess (soon to be a Russia 5M owner) finished his self-launch checkout in Tupper Robinson's DG-500M at Minden.

jimwalsh@mindspring.com

STEMME EXPANDS LINE

Stemme is introducing two new aircraft, the **S08 and S07**, both derivatives of the Stemme S10 high-performance motorglider. The 18-meter **S08** is a touring motorglider with the same turbocharged Rotax 914 engine as in the S10-VT; also available is a version with a normally aspirated Rotax 912 engine. Unlike the S10-VT, which has a retractable propeller for most efficient soaring, the **S08's** propeller will not retract, but will feather, reducing drag in the glider configuration. Another difference is that the **S08** will have fixed tricycle landing gear while the S10 uses a tail wheel with retractable main wheels. The **S08** is expected to cruise at 148 knots compared to the S10-VT's 140 knots. The **S07** is Stemme's first "pure" glider which can be used for training or competition. It has detachable wing tips for an 18 or 20 meter span. Glide ratios for the S10-VT, the S08, and the S07 are 50:1, 35:1, and 45:1 respectively. The S10-VT entry price is about $170,000. Stemme USA, the North American distributor for the German manufacturer, expects the **S08** to start at about $120,000. The **S07** has a planned price of roughly $75,000. For more information: http://www.stemme.com or contact Brian



S08: Cruise Range under Power- 1,120 sm; Glide ratio-35:1
Cruise Speed-148 kts; Rate of climb-980 fpm; Span 18 meters (59ft)
Stall speed-42 kts; Available with 100hp Rotax 912S or 115hp turbocharged Rotax 914.

S07: A sport glider with a glide ratio of 45:1; Detachable 18 meter or 20 meter wing tips. Docile handling characteristics for training yet with 20 meter tips it can be used for competition.

PIK 20E II Propeller Loss & Ignition Box Grounding ALERT

By Terrance Ebling

After 15 years of owning a PIK 20E 11 with the dual ignition Rotax 505 engine, two separate potentially dangerous problems have occurred that PIK owners need to be aware of.

The first is that the entire propeller and toothed hub came off while climbing out under power. When this occurs the propeller strikes the turtle deck just behind the pilot's head, punching a hole in the turtle deck, then jumps down the right wing punching four holes through the wing. This destroys the propeller and you will probably lose the hub as well. The propeller shaft is twisted and bent by the torque of the departing prop. This ends up being a very costly repair, as the parts are hard to get and quite expensive. As the prop exits you may also be put in a position of having to land out in hostile conditions, which may result in further damage or injury. I was launching out of North Palm Beach, Florida and only 20ft high when the prop came off and was able to recover my broken prop and the geared hub after a safe landing. The plane was repaired and has been flying for the past two years. This has also happened to a friend's PIK while over Saginaw Bay, Alaska. He was high enough to land at an airport safely but never recovered the parts. PIK also issued a Service Bulletin that cited several other occurrences of lost props. The bulletin suggested that when removing the hub for propeller bearing greasing, a new lock washer ring be used as they felt that maybe the same tab had been bent prior and caused a fracture of the tab from repeated bending. However, in our cases both failures were with brand new rings. The lock ring was recovered in my case and was found to have the inner tab broken off. Since the design is of a left handed thread on the prop shaft, this should tighten the nut when the engine is running rather than loosen it, but they still seem to come off. As a precaution to prevent this from recurring, other PIK owners have used the high strength Lock Tight when replacing the prop nut. However, if there is enough torque and vibration to shear off the tabs on the lock washers, I don't feel that the application of Lock Tight would be sufficient to prevent another incident. To be on the safe side, I drilled four angled holes in the nut and welded two tabs with holes to the inside of the hollow propeller shaft so that after using Lock Tight I can safety wire the nut in two places. This seems to have prevented any further problems.

The second problem I experienced was an engine failure after takeoff from Hurricane Utah at about 120ft high with resultant landing damage to the plane caused by landing off of the field, ground looping and breaking the fuselage and landing gear. The PIK is currently being repaired by George Applebay. The cause was, in spite of the dual ignition system on the Rotax 505, the original wiring had both Polar Fire boxes grounded with a common ground wire under one bolt holding the boxes to the mounting bracket.

Continued on page 11.....

Pilot Profile

Nelson Funston lives in Mercer Island, WA with his wife Jan. He is a member of the Seattle Glider Council and flies his sailplane out of Ephrata airport. He has recently taken delivery of his first powered sailplane, a Nimbus 4M. His primary reason for purchasing the 4M was to be able to fly out of Ephrata during weekdays when a tow plane is not normally available. An experienced sailplane pilot with over 4,000hrs, Nelson soloed in October 1966 and had his first powered sailplane flight in PIK-20E in July 1982. Nelson is a dedicated Open Class pilot placing first in Region 8 Open Class in 1999 and 2000.

ANTARES-The New Self-launching Silent Super Sailplane
By Lange Flugzeugbau GmbH

The next 2 issues of the ASA Newsletter will contain detailed info on this new company including the design of this electric-powered 18/20 meter sailplane. Test flying is nearing completion and fixed delivery positions are being taken with the first serial production ship to be delivered in October 2001. Using lithium-ion batteries, a sustained climb to 9,840 ft agl is expected and will be verified with flight tests.

PIK-20E Alert…continued

The weak point in the ignition box mounting is that the bracket tends to crack or the bolts holding the bracket either work loose or shear off due to engine vibration. In my case, two of the bolts worked loose and then the bolt under which the common ground lead was attached broke, leaving both boxes with no ground and resulting in an instant engine failure. In addition to using Lock Tight for all the mounting bolts, I have tied into the ground wire and made an extra ground wire so that it has two separate grounding points. This creates the originally intended but not provided duplicity in the ignition system. It is recommended PIK-20E pilots inspect these two potential problem areas prior to the next flight. *For more information, contact: Terry Ebling. P.O. Box 1053, Spruce Pine, NC 2877. Email tebling@yahoo.com*

Classic Schleicher K-14 For Sale

2010 TTAF/205 TTE. 26hp 4-cylinder 2-cycle Hirth F-10A Engine with recent overhaul. Basic instruments with Winter & Ball varios. Includes soft top trailer. 28:1 L/D $16,500. Call Jane Robens 301-897-8568/MD

CORRECTION

On page 4 of July/August Newsletter: Rotax Powered Scheibe SF-25 "Falke" under Fuel. According to Rotax the following fuels can be used for the specified engines:

Due to the higher lead content in AVGAS, the wear of the valve seats, the deposits in combustion chamber and the lead sediments in the lubrication system will increase. Therefore, use AVGAS only if you encounter problems with vapour lock or if the the other fuel types are not available. Use only fuel suitable for the respective climatic zone and note there is risk of vapour formation if using winter fuel for summer operation.

7 for more details....

ASA Mission

The **A**uxiliary-powered **S**ailplane **A**ssociation, Inc. was founded as SLSPA in 1988 as a non-profit organization to encourage the design, development and safe use of motorgliders, self-launching and sustainer engine sailplanes.

ASA Membership

Membership in ASA is open to anyone interested in powered sailplanes. Write or call:
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Tel: 561-750-6876 Fax: 561-393-7458
Annual Dues: $20 USA, $25 International

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Publishing Information.....

Pete Williams, ASA Publications Manager, is the Editor, and Print Production Manager for the newsletter. As such, he supervises and coordinates with a printer located in Minden, Nevada. The Newsletter is mailed from Minden.

Contributors are requested to submit hardcopy typewritten or keyboarded text . 12pt font size is best for accurate scanning. If submitting text on a floppy disk, please advise the word processing program used.Text may be edited as required to fit the newsletter. The newsletter is produced on a Macintosh G-3 using AppleWorks word processing software. Photos are always welcome and will be returned promptly.

The newsletter is delivered to the printer the last week in Jan; Mar; May; July; Sept & Nov. ASA desires input on what the members want in this newsletter and we are doing all we can to keep it informative and interesting. ***It's your newsletter, so please let us hear from you!***

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November-December 2000 NEWSLETTER

INSIDE.....
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