San Diego Ship Modelers' Guild

2960 Chicago Street, San Diego, Calif. 92117

Volume 13 Number 4

April Meeting: Friday, April 15, 1989
7:30 Social - 8:00 Meeting
Orlop Deck of the *Star of India*
Bring a model!

Notes from the March meeting

Business travel prevented your editor from attending the March meeting, and according to Guild Master Doug McFarland, apparently many other members were also unable to make it for one reason or another, as total attendance was only about 15 members. Doug did take a few notes however, so we can at least pass along the following information about what happened. The guest speaker for the evening was wood carver Walt Jacobsen, who gave a demonstration of his art. Models present were:

Leon A sailing ship model built by Bob Pranka. (Being familiar with Bob's excellent work, I'm sorry I missed seeing it!)

rske Love A sailing ship model built by Doug McFarland. Another example of Doug's fine work, which, believe it or not, has actually been under construction longer than *Hotspur*.

Russ Lloyd gave an update on the progress being made to put together a club data base. The input sheet for this data base was included in last month's newsletter. If you have not sent yours in yet, please be sure to do so. The forms should be sent directly to Russ, whose address is /redacted/. If you have questions regarding the form you can call Russ at /redacted/. If you have misplaced your form I have a few extras that I will bring to the April meeting. Many members have inquired about when a new club roster would be available, and we are anxious to get the job done, but the timing is dependent to a large extent upon how quickly the membership responds with the necessary data. As you may recall, one of the things we are including in the data base is a list of radio frequencies used by our RC contingent. Having just purchased a new radio, I can attest to the fact that it would have been very valuable to have known what freq's were already in use!

Bob Crawford again called for assistance in building a display case to be used to display the work of our "Modeler of the Quarter" in the Maritime Museum (onboard the *Berkeley*). Joe Bompensiero has volunteered to donate his time to build the case, but we still need materials (and I'm sure Joe would be happy to have some help also if anyone else wishes to volunteer.) The display case is proposed to be about six feet long, two feet wide and three feet tall. It would then be able to hold all but the very largest models, or alternatively, several smaller models. Lumber and plexiglas are needed.

Bob also announced that the next work party on the *Media* is coming up on April 22. A number of individuals have already signed up. There will be another opportunity to sign up at the next meeting. Even if you're not at the next meeting, but can get down to the Museum on the 22nd, you will be welcome. Just wear old clothes, be prepared to work and also to have some fun.
A second sign up sheet was circulated for Museum Model Shop volunteers. This generally involves a few hours spent in the shop, during which time the volunteer can work on his own project, but is also expected to answer questions from museum visitors. Those who have already participated indicate that it provides an opportunity to meet some very interesting people while also promoting our hobby, the club and the museum. It also allows the volunteer to use the tools in the shop. Times are flexible. See Bob at the next meeting if you are interested.

Hint of the month

Mike Rivera dug deep into his treasure chest of good ideas for this little gem. Hex head cap screws can be used as socket drivers. These screws, which require an allen wrench to tighten, make a very good miniature socket driver when they are imbedded in a wooden handle. Alternatively, the screw can be bent at a 90 degree angle to form a miniature right angle socket driver.

April presentation

Roy Nilsen will give a talk on various techniques for making railings on ship models, and on the various kinds of railing found on naval, cargo and passenger vessels. If you have experienced problems with railings, or have developed useful techniques of your own, your questions or ideas will be most welcome.

A celebrity in our midst

Well perhaps celebrity is not the correct word. A skilled artist, superb craftsman and recogniz authority around the world for sure however. Vic Crosby would probably eschew the term "celebrity", but his work is widely known and respected, and has been displayed as far away as Japan. On a recent business trip I had the opportunity to visit the Portland Maritime Museum in Portland, Oregon, and amoung the first things I saw when I entered the building were several of Vic's ships in bottles. A truly prodigious producer of these miniature jewels, Vic has for years delighted and confounded guild members with his works. The one thing you can be sure to hear whenever Vic shows off his latest creation is, "How does he do it?" Vic has accompanied displays of his models to Japan on two previous occasions and is considering a third visit. We are very fortunate to have Vic as a member of our Guild.

Help

We still need a new editor for the newsletter. My work weeks are running into 50-60 hours, and I now travel virtually every week. Someone is going to have to step forward and take this thing over or by next month we may simply not have a newsletter. How about it guys. Its someone elses turn in the barrel. Besides, its fun! Try it, you'll like it.

Cartoon

Since I am temporarily out of Roy Nilsen cartoons, here is a joke as a poor substitue. A fellow won ten million big ones in the California lottery. He immediately called his wife and told her to pack her bags. She was delighted, but asked, "Should I pack for Hawaii or the Swiss Alps?" "I don't care," replied the fellow, "just as long as you're gone by the time I get home!"

Tried to buy RC equipment lately?

Recently I decided it was time to purchase a new transmitter and receiver. I wanted a 5 or 6 channel system in order to be able to control several special functions on my model of *N.S. Savannah* . I did not anticipate any difficulty in finding what I wanted, but boy was I in for a big surprise. Wherever I asked for a 5 or 6 channel radio in the 75 MHz. band I was met with blank stares and a "Sorry chief - no got!" After checking with four local retailers and calling the factory reps for Futaba and Airtronics, I discovered that neither of these manufacturers even make what I was looking for. In fact the maximum number of channels available on 75 MHz. for either of these two companies was four. The problem seems to be one of simple supply and demand. Where mass marketing is the name of the game, the supply exists where the demand is greatest. The 75 MHz. band is now dominated by model car enthusiasts, who by and large are happy with only two channels. Even our pals in the Argonauts require only two channels for the gas boats, and apparently four or less for the sailors. The 5,6,7 and 8 channel systems are built for the fly boys and are on 72 MHz. There simply is insufficient demand for multi-channel units on 75 MHz. to make it worth the manufacturer's effort to produce them (and the retailers don't want to be stuck with them on their shelves!) There are a few exceptions that I am aware of, but they do not come cheap. One is a system marketed by Robbe called the Terra Top FM Marine Radio. This unit is serviced by Futaba, so perhaps it is also built by them, but it is available only through Robbe, and apparently only through the mail or by special order. I did not find any of these units in our local hobby stores. This unit incorporates four proportional channels plus "four channels available ..... to install ..... optional expansion" which are described as:

- Switch/Prop Module with two channels each
- Multi-Switch Module and Decoder with 6 switch channels each
- Multi-Prop Module and Decoder with 7 proportional channels each
- Twin-Engine conversions

Now, I'm not sure I understand what all that means, but it sounds like you could wind up with 20 channels, 11 of them proportional, if you added on all the bells and whistles. It also sounds very expensive. I did not pursue this option. Actually there is another system marketed by Vantec that goes even further. This system begins with a Futaba six channel system and adds a keyboard to provide a total of 32 channels. Thats about a five fold overkill in my situation. All I want is a five of six channel system, and I'd like to be able to get it without taking out a second mortgage on the house.

My solution, and the one I have found most scale modelers in similar situations resort to, is conversion. A 72 MHz. unit can be converted to operate on 75 MHz. There are some restrictions however. First the system must be an AM system. For some reason the factories (at least Futaba and Airtronics) will not convert an FM system. Second, you really can't effectively change these system over simply by changing the crystals. They have to be re-tuned as well. In fact in most cases a frequency change of three MHz. requires changes in capacitor and resister values and sometimes changes to the coils as well. Operating frequencies are becoming closer and closer together, requiring that tighter specifications be maintained. Unless you really know what you are doing, it's a job best left up to the factory technicians.

In my case, I finally wound up buying a six channel Airtronics Vanguard AM system from a place called Sheldons in San Jose. Sheldons was recommended to me by the Airtronics rep. because they

had the radios in stock, and because they do a high volume mail order business. As an aside, after having received my equipment from Sheldons, I was in San Jose on business and had the opportunity to visit their store. If you put West Coast Hobbies, Hobby Shack and The Hobby Store together, then doubled that, you would have Sheldons. They are a very big outfit. Anyway, the radio cost $135. With tax and shipping charges it came to $148. Then I had to ship the unit up to Airtronics to be converted. UPS charged me another $4. The conversion cost $25 plus another $2.50 for shipping. (They must know the UPS guy better than I do!) So the total cost was nearly $180. Two weeks later I saw the same radio on sale at Hobby shack - in 72 MHZ. naturally, for $109. What's a mother to do?
Anyway, if you're in the market for a new radio, be prepared to pay the price of being a minority market segment.

10 Years ago, April 1979

The meeting was called to order by Guild Master Bill Benson. Thirty two members were present. Ed White gave a slide presentation on maritime museums along the eastern seaboard. There were 15 models present including a ship in a bottle by Vic Crosby and Doug McFarland's *Norske Love* (See, I told you it had been under construction a long time! Some of the planking near the keel has already begun to petrify.) Three members now deceased, Bill Benson, Bob Brady and John Woodard brought models. Also present was work by Mike Rivera, Royce Privett, Bob Crawford and Doug Smay. Plans were made at this meeting for a club harbor cruise on the barkentine *California* . Also, plans were made for a show/picnic at Lakeshore Gardens mobile home park.

***Lady Washington* launched** reported by Gordon Jones

On Wednesday, March 7, 1989, after four years of dreaming, planning and construction, the 112 foot *Lady Washington* , a replica of the first *Lady Washington* which ventured up the Pacific Coast more than 200 years ago, was launched. Washington States' official tall ship was built to celebrate the bicentennial of Capt. Robert Gray's exploratory venture into Pacific coastal waters and Wsahington statehood. The launching of the *Lady Washington* is the initial project of th Grays Harbor Historical Seaport, which hopes to boost the community's sagging economy with a working shipyard where other historical and vintage vessels will be constructed and restored; a museum related to the area's seafaring history, and a waterfront tourist attraction featuring shops and hotels. The keel of another of Capt. Gray's ahip's, the *Columbia* is to be laid in July. The *Lady Washington* cost about $1.5 million to build, and the larger *Columbia* will cost about $2.5 million. Lead shipwright on the project was Richard Miles. The Captain is William Bray of Florence Oregon. (From an article by Sally Macdonald in the Seattle Times, dated 3/8/89)

Naval Developments

(The following article seems almost stranger than fiction. However, it is no "April Fools" joke! It is excerpted from an artcle by Commander Richard Compton-Hall, MBE, Royal Navy [retired], which appeared in the Professional Notes section of the January, '89 issue of the U.S. Naval Institue Proceedings. Commander Compton-Hall is director of the Royal Navy Submarine Museum, and is the author of numerous articles and eight books on submarines, some of them controversial. His service career included command of a midget "X-craft", two standard submarines and a frigate.)

There is one revolutionary submarine design that only recently has been investigated carefully outside of Italy, its country of origin. Produced by Maritalia ..... the technology ..... could upset the underwater balance of power. The Maritalia system, patented and protected, was invented by Signor Giunio G. Santi and has been in development since the early 1970s. Yet it was not unti'

February 1987 that the company ..... received a "stamp of approval" from the Italian Navy. A letter from the Italian Navy's Chief of Naval Operations (CNO), Admiral of the Fleet Giasone Picciont, stated " I have the pleasure to inform you that the Operational and Technical Departments of the Italian Navy have tested the results you have achieved both with closed-circuit diesel propulsion and energy storage by means of a toroidal pressure hull and that both solutions are judged by the navy to be valid for the fleet. Sea trials undertaken by your submarine IMI-35 and the toroidal hull test trials of your second submarine CEE-22 indicate the validity of the adopted solutions. In addition we have examined your project concerning the 'gst Midget type 100' and that has been judged to be operationally valid." The letter spelled success for Santi and Maritalia in the Italian Navy; but apparently there has been scant interest elsewhere.

A gaseous storage toroidal (gst) submarine is a package deal - an integrated system, necessitating a particular form of construction, with an air-independent engine, but it is helpful to separate the parts to understand the whole.

A toroidal hull is simply a steel "Michelin man." It is composed of a series of pipes bent into a circular shape and welded together. The thickness of the steel in relation to the diameter of the torus for a given hull's strength and size has not been released to the public but, looking at a submarine under construction, it appears that a 12 inch-diameter pipe is less than three-quarters of an inch thick. Naturally, the dimensions of a torus are related to the quantity of gaseous oxygen stored, the size of the submarine, and the submarines estimated diving depth.

Building a submarine with a toroidal hull to an Albacore shape is much easier than bending sheet metal in two planes. The diameter of each circle is simply diminished successively. This also makes it quicker to build a moderate sized boat (the company quotes two years from start to completion). Toroidal construction is extremely strong. That was proved by a test vehicle in a pressure tank that, weight for weight compared with a normal plated hull, was expected to start showing signs of weakness at around the 200 meter depth mark. In fact, during a 13 month test period, the hull structure eventually caved in over one section at a depth equivalent to 1,186 meters.

A toroidal hull, which has light ribs inside and out as a convenience for fastenings, is smoothed externally by two layers of anechoic material. This is applied not in the form of tiles but, like a wooden boat, with strakes. The toroids have a crucial function of their own. Each circular pipe is used for storing gaseous oxygen (at 350 barometric pressure) which, with the diesel fuel, is the prime energy source. Diesel fuel can be stored externally or internally. There is more available storage space in a toroidal hull than in a standard plated hull of the same tonnage. In the commercial IMI-35, built on fairly conventional lines and used for evaluating the closed-cycle diesel engine, only 25% of the internal volume is available. In the toroidal hull of the first operational general-purpose midget, the 3 gst 9 (an Albacore shape, 9.65 meters long), 80% of the space is available because the gaseous oxygen is stored in the hull itself. Pipe construction offers an additional advantage. It dampens radiated noise to a marked extent - which is one reason why the Soviets reportedly like double-hulled construction. (If the Soviets have adoptedf torodal hulls for some of their boats ..... it would explain a few oddities connected with displacement and diving depth.)

The closed-cycle diesel system ..... in these Italian boats is almost disappointingly straightforward. The engine includes on 420 horsepower (hp.) main anaerobic direct drive diesel,

and two 60-hp. anaerobic diesel generators in the 100 - 136 ton midget designs. There is ample power to spare for anything a submarine might need - kilowatts for air purification, fresh water production, powerful sonar - and no backup electric cells needed. Exhaust gasses are stored and are not ejected into the sea, thus eliminating depth restrictions due to back pressure, and there is consequentyly no exhausst trail for antisubmarine warefare units to detect.
If as planned, toroidal closed-circuit diesel submarines are scaled up from the existing midgets, they are expected to rival the tactical performance of a nuclear-powered attack submarine (SSN). For example, a (conceptual but designed) submarine of 2,800 tons with a 12,000 horsepower, closed-cycle Fiat diesel system can make 30 plus knots for 3,000 nautical miles (n.m.), 25 knots for 3,900 n.m., and prorata down the scale until, at five knots, it has an endurance of 50,000 n.m.
Obviously, there will be some skepticism about these boats' figures because they compare well with nuclear-power capabilities, would cost a fraction of the cost, and don't require expensive shore facilities or training. The entire design is simple and fully integrated. The implications of Signor Santi's farsightedness is that relatively small, inexpensive, and hard-to-detect submarines with a near-nuclear performance, are likely, before long, to challenge or compete with the SSNs that currently reign supreme. It would be wise for the major navies to procure some gst boats for themselves - they are no mere pipe dreams.

Something for the RCer with everything

If you already an electronic speed control, working running lights, engine sound generator, and an operating helicopter for your model, you may be asking yourself "what else can I get in the game of RC oneupsmanship?" Well, fear not Bunky! What you need is a "Turbo Encabulator". Read on .....

> **For a number of years now, work has been proceeding in order to bring perfection to the crudely conceived idea of a machine that would not only supply inverse reactive current for use in unilateral phase detractors, but would also be capable of automatically synchronizing cardinal grameters. Such a machine is the "Turbo-Encabulator". Basically, the only new principle involved is that instead of power being generated by the relative action of conductors and fluxes, it is produced by the modial interaction of magneto-reluctance and capacitive directance.**
>
> **The original machine had a base plate of prefabulated amulite, surmounted by a malleable logarithmic casing in such a way that the two spurving bearings were in a direct line with the pentametric fan. The latter consisted simply of six hydrocoptic marzelvanes, so fitted to the ambifocient lunar wane-shaft that side fumbling was effectively prevented. The main winding was of the normal lotus-o-delta type placed in pandermic semi-baloid slots in the stator, every seventh conductor being connected by a non-reversible tremie-pipe to the differential girdle spring on the "up" end of the grameters.**
>
> **Forty-one magnetically spaced grouting brushes were arranged to feed into the rotor slip-stream a mixture of a high s-value**

phenlyldyhydrobenzamine and five per cent reminative terryliod-hexamine. Both of these liquids have specific pericosities given by: $P = 0.5\ C_n\ 1.6$ where n is the diathetical evolute of retrograde temperature phase disposition, and C is Chalmodeley's annular grillage coefficient. Initially, n was measured with the aid of a metapolar refractive pilfrometer (for a description of this ingenious instrument, see L. D. Rumpelverstein in Zeitschrift fur Elketrotechnistatishe Donnerblitze, VII, 1324) but up to the present date nothing has been found to equal the transcendental hopper dadoscope. (See Proceedings of the Peruvian Academy of Skatalogical Science, June 1914).

Electrical engineers will appreciate the difficulty of nubing together a regurgitative purwowl and a supermitive wannel-sprocket. Indeed, this proved to be a stumbling block to further developement until, in 1942, it was found that the use of anhydrous nangling pins enabled a kryptonastic balling shim to be tankered.

The early attempts to construct a sufficiently robust spiral decommutator failed largely because of a lack of appreciation of the large quasi-piestic stresses in the gremlin studs; it was discovered that wending could be prevented by a simple addition to the living sockets and henceforth almost perfect running was secured.

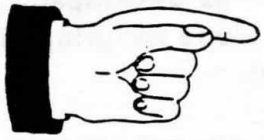
The operating point is maintained as near as possible to the h.f. rem peak by constantly bromaging the bitumogenous squandrels. This is a distinct advance on the standard nivelsheave in that no dramcock oil is required after the phase detractors have remissed.

Undoubtedly, the turbo-encabulator has now reached a very high level of technical development. It has been successfully used for operating Noterscummions. In addition, whenever a barescent skor motion is required, it may be employed in conjunction with a drawn reciprocating dangle-arm to reduce sinusoidal degteneration.

Now thats an April Fools joke !!!

San Diego Ship Modelers Guild
Doug Smay, Editor /
redacted/

FRED FRAAS
/redacted/



San Diego Ship Modelers Guild
Officers for 1989

Master	Doug McFarland	/redacted/
Mate	John Fluck	/redacted/
Purser	Bob Hanley	/redacted/
Logkeeper		
Newsletter Editor	Doug Smay	/redacted/
Steering Committee	Ed White	
	Bob Crawford	/redacted/
	Ralph Aruda	/redacted/
	Roy Nilson	/redacted/

Schedule of Activities

Meetings - Third Friday of the month
7:30 PM social, 8:00 PM meeting

Static Workshops - Every other Tues.
7:00 to 9:00 PM aboard the ferry Berkeley

R/C Operations - Saturday mornings
Model Yacht Pond

Annual Regatta - Third weekend in June

Membership

Dues are $10 annually

We strongly encourage all to joint the San Diego Maritime Museum as an expression of appreciation for the facilities they provide us.